

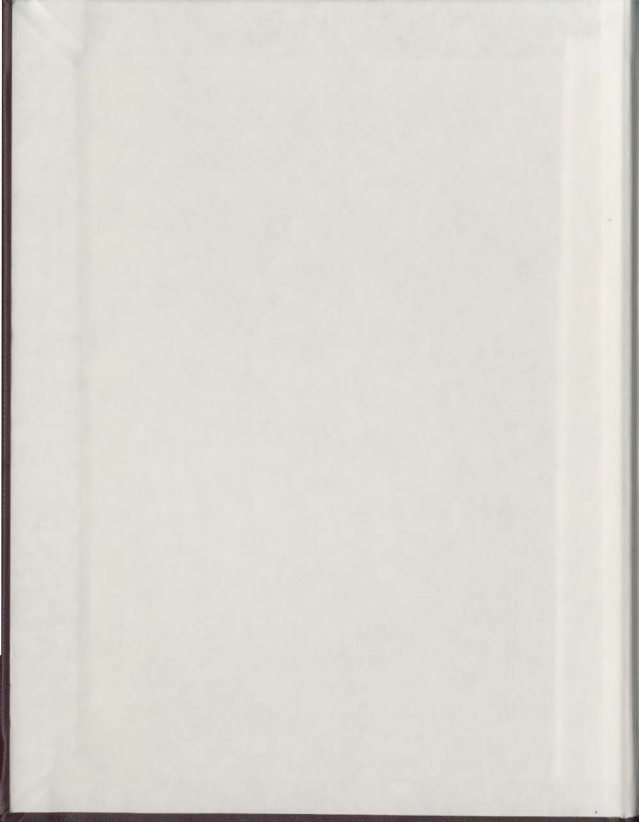
THE EVALUATION OF AGORAPHOBIC PATIENTS'  
RESPONSES TO A SELF-PACED EXPOSURE  
PROGRAMME EMPHASIZING COGNITIVE SKILLS  
AS OPPOSED TO ONE EMPHASIZING  
RELAXATION TRAINING

CENTRE FOR NEWFOUNDLAND STUDIES

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THE EVALUATION OF  
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TO A SELF-PACED EXPOSURE PROGRAMME  
EMPHASIZING COGNITIVE SKILLS  
AS OPPOSED TO ONE  
EMPHASIZING RELAXATION TRAINING

by



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A Thesis submitted in partial fulfillment  
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# ABSTRACT

Evaluation of behavioural treatments of agoraphobic clients has mainly focussed on the efficacy of the method used. Client characteristics, however, have been largely ignored in spite of the fact that it is widely acknowledged that clients show their anxiety in different ways. The present study is an attempt to match clients' typical mode of anxiety responding with appropriate treatment. The sample included 14 agoraphobics (11 women and 3 men) who presented themselves for treatment to a Department of Psychology Teaching Clinic. The client's typical mode of responding was assessed using the Lehrer and Woolfolk Symptom Questionnaire (1982). On the basis of their scores on this questionnaire they were divided into cognitive responders and non-cognitive responders. A self-paced group treatment programme was varied to include either cognitive training or relaxation training keeping exposure and the giving of psychological explanations for agoraphobia as a constant. Half of the clients were matched for mode of responding to treatment while the other half were not. The group was run over 5 weeks, on a weekly basis, by two therapists. Only one client dropped out of the programme and the evaluation of the efficacy of matched versus not matched for mode of responding was tested at 5 weeks, 12 weeks and 6 months. The results showed that the matched group improved more than the unmatched group. However, the results were not entirely due to matching since the

cognitive subjects, whether matched or unmatched, improved more than the non-cognitive subjects.

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1

The Evaluation of Agoraphobic Patients' responses to a  
Self-paced Exposure Programme emphasizing Cognitive Skills  
as opposed to one emphasizing Relaxation Training.

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Agoraphobia is popularly interpreted as being a fear of open spaces, but, it has wider implications, for agoraphobic patients are generally thrown into a state of trepidation when they are forced into a situation in which they may be subjected to the sense of helplessness or humiliation that results from the eruption of a panic attack to which they may be subject. They are threatened not only by open, public places but by those situations, such as crowded stores, public transportation, elevators, and theatres, from which they can find no ready escape. Although they may feel more comfortable when accompanied by a friend or relative, they tend to avoid the dangerous situations by restricting their activities and excursions to an increasingly smaller area, and in extreme cases they may be totally confined to their home. (Kaplan and Sadock 1982)

Over the past 20 years important advances have been made in the treatment of agoraphobia. These advances have led to a positive prognosis for phobics entering therapy. (Norton et al. 1983) For example, Barlow and Wolfe (1981) report that results from numerous studies indicate that approximately 65-75% of those clinical phobics who complete treatment show substantial, clinically significant improvement from exposure based treatments with positive

effects enduring through follow-up of 4 to 9 years. However, when people who either are unable to complete treatment or drop out of treatment are considered, the actual rate is closer to 49% than the oft-quoted 75%.

This type of finding has led recent researchers in their attempts to identify client characteristics which will predict successful treatment of agoraphobia. For instance, Matthews et al. (1981) have stated that it would clearly be of some practical and theoretical value to predict who would benefit most from a particular method of treatment.

#### DESCRIPTIONS OF AGORAPHOBIA

The person most often credited with having been first to describe Agoraphobia is the German Psychiatrist who suggested the name, Westphal (1871). Although his study was based on only three male subjects, he identified the most striking symptom as anxiety that appeared when one was walking across open spaces or through empty streets. The anxiety-type symptoms he described included palpitations, trembling, apprehension of impending insanity or death, blushing, and various social and anticipatory anxieties. The cardinal features of agoraphobia have remained as Westphal described them over a century ago.

The DSM III classification lists an irrational fear of leaving the familiar setting of home as the central feature of agoraphobia. Phobic symptoms are described as generally appearing after the preliminary phase of panic attacks (to

be described later), leading to a sense of anticipatory helplessness away from home. The phobic situations included are crowds, closed spaces, and tunnels where access to help is limited. In addition, the associated features described as often present include pleading, demanding, manipulative, and infantile behaviour. Finally, obsessional trends are described as common. (DSM III, 1980)

Mathews, Gelder and Johnson (1981) have described the central symptoms of agoraphobia as phobic anxiety which is anxiety that appears only in clearly defined situations. They state that in agoraphobia, the situations that provoke anxiety share certain common themes, usually distance from home or another safe place; crowds, and confinement.

Thorpe and Burns (1983) identify important situational fears to include going into public places such as streets, shops, crowds; enclosed spaces such as theatres, churches or lifts; travel on public transport - trains, tubes, buses or planes, but not usually in private cars or ambulances; travelling over bridges or into tunnels and remaining at home alone. Fears of these situations involving confinement or restrictions of movement can evoke intense feelings of anxiety or panic in the agoraphobic. Examples include sitting in a barber's or dentist's chair, queuing in a shop, sitting in a bus or talking to a neighbour. In these and similar situations the agoraphobic feels trapped with no appropriate line of escape available and many appear to plan out escape routes in advance.

Panic Attacks: In some cases generalised anxiety, in addition to phobic anxiety in the feared situation, can mount to a severe state that is usually termed a panic attack. After reviewing the literature Stampfer (1982) described the prominent somatic symptoms associated with the panic attack to involve autonomic nervous system arousal with an emphasis on palpitations, tachycardia, shortness of breath, dizziness and tremulousness.

Many agoraphobics fear fainting or dying during a panic attack. During the attack, which may last for a few seconds or up to an hour, it is difficult for the patient to retain a rational pattern of thinking. Clinical experience indicates that weeks of successful therapy can be undone by a few minutes of acute panic. (Thorpe and Burns 1983)

Although panic attacks are generally associated with agoraphobia they are not a prerequisite of agoraphobia as illustrated by Kaplan and Sadock (1982) who state that in those occasional instances in which a history of panic attacks is not elicited in a patient suffering from agoraphobic symptoms, the disorder should be classified as 'agoraphobia without panic attacks'.

Obsessional Trends: Obsessional trends are identified in DSM III (1980) as occurring in agoraphobia and according to Mavissakalian (1982) agoraphobia shares several common features with obsessive-compulsive disorder. First, recent physiological studies suggest that increased basal autonomic

arousal characterizes obsessive-compulsive disorder as well as agoraphobia and anxiety neurosis. (Kelly 1980, Lader 1978) Another major similarity is the presence of internal fears of losing control in both obsessive-compulsive disorder and agoraphobia (Marks 1970). The fear of panic attacks of agoraphobics, has, in itself, obsessional qualities as it returns to haunt the patients again and again, leading them to ruminate about it for hours or even days before an event or an outing. Finally, although compulsions are the hallmark of obsessive-compulsive disorders, it is not infrequent to find functionally equivalent behaviours in agoraphobia. For example, the patients' frequent calls for reassurance, their checking on the whereabouts of trusted people, and their compulsive carrying of tranquilizers though they know it is silly and have not taken one for years.

Other Symptoms: In addition to phobic anxiety, symptoms such as depersonalisation, depression, and poor psychosexual functioning may be present. For example, Bowen (1979) reported that 90% of his sample of agoraphobic patients suffered from depression. Mavissakalian (1982) has described the relationship between agoraphobia and depression as multifaceted and includes 1) the onset of agoraphobia in the context of stressful life events and the frequently observed depressive symptomatology in agoraphobics, 2) the worsening of agoraphobia during depressive episodes, 3) a relatively high incidence of

premorbid and emergent agoraphobia in major depressive disorder, 4) a high incidence of primary depression in agoraphobia as well as high prevalence of depression and alcoholism in first degree relatives of agoraphobics.

#### The Validity of the Agoraphobic Syndrome

In view of the variation of symptomatology of which the agoraphobic sufferer complains, it can be argued that it may not be valid to recognise the syndrome as a distinct clinical entity, rather, agoraphobic fears should be looked at as occurring in a variety of clinical contexts such as depression or generalised anxiety. In a critical review of the concept of agoraphobia, Hallam (1978) argued that labelling a reluctance or refusal to leave home or other place of security as phobic avoidance has given the misleading impression that the syndrome, of which this behaviour is a part, has an underlying unity and coherence based on a fear of public places. Hallam contends that insufficient attention has been paid to differentiating the syndrome from anxiety neurosis. Agoraphobia, he argues, might not be a central core feature of a phobic syndrome but a variable feature of patients whose neurotic anxieties have a multitude of different sources. A study by Arrindell (1980) has made an important contribution to this discussion. In his study, Arrindell factor analysed the responses of 703 non-institutionalised phobics to the Fear Survey Schedule (FSS III), utilising a principal components procedure. The results clearly point to the specificity of

agoraphobia and that agoraphobia is not reducible to a different subset of fears or to a general trait of fearfulness. Higher-order factor analysis demonstrated both phobia and agoraphobia to be independent of neuroticism (anxiety or general emotionality). In addition, the agoraphobia dimension was shown to be independent of the phobia factor.

### Epidemiology

The descriptions of agoraphobia given above have focused on the symptoms associated with the disorder, however; in order to fully describe the disorder it is also necessary to consider the incidence and prevalence rates as identified in epidemiological studies. Two types of data are considered in this and following sections. These include epidemiological data obtained by Burns and Thorpe (1977a, b) in a National Survey of Agoraphobics. Where possible both sources of information are compared.

Frequency: Agras et al. (1969) in an epidemiological study of phobias in a North American town, reported that of the 2.2 per 1,000 phobias being treated half were agoraphobia.

Age Range of Onset: The age range of onset of agoraphobia is generally quoted at 18 to 35 years with two peak ages at around 20 and between 30-35 years. The mean age of onset has been reported as 24 years (Marks and Gelder, 1965), 29 years (Marks and Herst 1970), 31 years (Buglas et

sl. 1977) and 28 years (Burns and Thorpe 1977a).

In the National Survey of Agoraphobics, Burns and Thorpe (1977a, b) surveyed approximately 960 subjects. The epidemiological information detailed below is taken from their survey.

Sex Ratio: The percentage of females was 88.16%. The male:female ratio was 1:7.45. This ratio is somewhat higher than the 1:3 quoted by Marks (1970) and Terhune (1949).

Marital Status: The marital status of agoraphobic sufferers was: single 10.80%; engaged 0.62%; married 71.03%; remarried 6.13%; separated 2.39%; widowed 6.33%; divorced 2.80%.

Educational Status: After leaving school 11.9% of the sample had further educational opportunities at college and 0.7% went to University.

Occupation: Of the sample 28.67% had a job outside their homes.

Precipitants: A precipitating event was reported by 70% of the sample. However, only 38% of the total reported having had a fear-provoking experience. Of these, 32% reported having been directly exposed to a traumatic event outside the home; 6% reported witnessing a traumatic experience in others while out of the home; 23% reported that their agoraphobic problems emerged after the death of a relative or friend; 13% reported the onset after they had



experienced an illness; 8% after giving birth; 4% attributed the onset of their problems to a strained marital relations.

Fluctuations in Agoraphobia: Of 963 sufferers, 89.5% reported that the agoraphobia fluctuated on a day-to-day basis. There was a statistically significant sex difference with fewer male sufferers reporting fluctuations. The results indicated that the five most fearful factors for agoraphobics, in order of importance, are: being in a trapped situation; having to queue in a shop, etc; increase of distance away from home; having a definite appointment; domestic arguments and stress. On the other hand, factors which make the agoraphobic feel better, in order of importance, include: when out, having a way open for a quick return home; being accompanied by husband/wife; sitting near a door in a restaurant/hall, etc.; talking the problem over with a friend; focusing their mind on something else; talking the problem over with the sufferer's doctor; being accompanied by a friend; talking 'sense' to oneself (e.g. providing reassurance).

### THREE SYSTEMS MODEL OF ANXIETY

Throughout the description of agoraphobia, anxiety was referred to both in terms of generalised anxiety and in terms of phobic anxiety. Since agoraphobia is an anxiety-based disorder it is necessary to examine the components of anxiety more closely. Following his repudiation of the "lump theory" of fear, Lang (1969, 1971)

advanced the idea that anxiety is a constellation of three different response channels. The resulting cognitive, physiological and behavioural systems are summarised by Burns (1982a).

#### The Cognitive System

The sufferer experiences feelings of apprehension and fear. Patterns of thought are frequently unproductive, irrational and anxiety-generating; they appear to be often related to an inability to cope with the feared situation and the physiological arousal evoked by it. Thoughts about the need to escape from the situation may become prominent; if such escape occurs the sufferer may engage in ruminative self-defeating thinking involving poor self-esteem, a sense of failure and of being demoralised.

#### The Physiological System

The high level of physiological arousal may, involve greatly increased muscular tension, rapid heart rate, hyperventilation, feelings of faintness, heightened blood pressure.

#### The Behavioural System

The intense distress usually results in a motoric withdrawal from the fear-provoking situation. If contact is maintained with the situation, impaired performance may be witnessed. Burns (1982)

FACTORS ASSOCIATED WITH AGORAPHOBIA

On the basis of correlational evidence a number of factors have been associated with agoraphobia. While the evidence does not imply cause and while none of the factors in themselves can be considered a sufficient explanation of agoraphobia, each has to be considered as a possible contributory factor. A number of factors often associated with agoraphobia are, therefore, discussed. These are precipitants, marital problems, family background, dependency and psychological gain.

Precipitants: A number of difficulties present themselves in trying to identify a precipitant for agoraphobia. Retrospective accounts are generally inaccurate with subjects either being unable to recall a precipitating event or confusing the time sequence of events in their attempts to associate an event with their first experience of fear. In some cases patients are able to recall or relate a specific incident which frightened them. However, in other cases the patient reports a number of stressful life events occurring simultaneously around the time of onset. Unlike the former the latter are unable to pinpoint one particular event which could be described as a precipitant. For example, Roth (1959) indicated that as many as 83% of agoraphobics report a precipitating event, Friedman (1966) on the other hand reports a figure of only 10%. A more detailed breakdown of precipitants identified in the National Survey of Agoraphobics is given under

epidemiology, however, their main finding was that whilst 70% of the sample reported a precipitating event, only 38% of the total reported having had a fear-provoking experience.

Marital problems: It is commonly assumed that major marital difficulties are present when one spouse is agoraphobic but whether this is a cause or a consequence of the disorder has not been established. Contributing to the view is the inclusion of poor psychosexual functioning in the associated features of agoraphobia. However, Buglas (1977) found that marital problems were no more frequent among a group of 30 agoraphobic patients, drawn from general practice, than they were in 30 healthy controls from the same practice. In the National Survey of Agoraphobics, Burns and Thorpe (1977a, b) found that when married agoraphobics were asked to rate on a four-point scale the effect the condition was having on the marriage, 21.5% felt it was putting a considerable strain on the marital relationship. When subjects were asked to rank the most important ways in which the agoraphobia was affecting their lives, 13.1% of the sample gave an impaired marital relationship as the main effect. There was a sex difference in that 14.18% of the female subjects felt that marital disharmony was the main effect whilst this was reported by only 8.93% of the male agoraphobics.

Family background: In the study by Burns and Thorpe (1977a) 13.1% of the fathers and 28.1% of the mothers of agoraphobics were described as having nervous disorders requiring treatment and 34.9% of the sample had at least one sibling requiring treatment.

Dependency: Some (Marks and Gelder 1965, Roth 1959, Terhune 1949) find that the marriages and families of agoraphobics are stable, whereas the agoraphobics are overprotected and dependent. Others (Buglas et al. 1977) find that agoraphobics tend to come from unusual home situations, with more step-parents and step-siblings or adopted siblings than control patients. However, the agoraphobics do not differ from controls in degree of dependency.

Psychological gain: Shafer (1976) found that psychological gain operated in 705 of her phobic sample. At the end of contact 39.68% of the reported sample had relinquished the gains that had accrued from their phobia. In the treatment of agoraphobics by a combination of systematic desensitization, graded in vivo exposure and supportive psychotherapy Shafer found that, in the sample of 68 agoraphobics, psychological gain impeded successful treatment, at least initially, in 37 cases and a third of the cases this impediment proved to be a permanent obstacle.

PROMINENT EXPLANATIONS OF AGORAPHOBIA

Since the time of Westphal people have been trying to explain the nature of agoraphobia, however, the prominent explanations to be described have been limited to those influenced by behaviour therapy and learning theory. These include Fishman (1980), Goldstein and Chambless (1978), Mathews et al. (1981), Emmelkamp (1975), Mavissakalian (1982) and Rachman (1984).

It is clear that agoraphobia can be regarded as a complex syndrome in which interactions between background factors, the sufferer's personality, and the degree of conflict in his or her interpersonal relationships may be important. However, it remains to be explained why the sufferer develops agoraphobia, as opposed to any of a wide range of other mental health problems, as a result of these diverse influences.

Precipitating events such as discussed above may or may not help explain the development of agoraphobia depending on one's theoretical perspective. Learning theorists, for example, would be more interested in reports of conditioning events, whereas social learning theory formulations of fear posit four distinct avenues. These include direct associative experience (for example, being involved in an aircraft hijacking); vicarious experience (watching a television newscast of a hijacking in progress); symbolic instruction (being told that flying is extremely risky);

and symbolic logic (reasoning that aircrafts are made by people, who are fallible, and therefore aircrafts may be unsafe). By extending the list of avenues toward fear beyond direct associative experience, theorists can give an account of phobias in people who have never confronted their phobic object in real life. For example, many flying phobics have never made a flight.

The kind of direct experience that would be of interest to behavioural theorists would be the onset of unpleasant physical sensations resulting from illness while the person is shopping in a crowded supermarket. Classical conditioning procedures of this kind could produce a conditioned response of anxiety.

In agoraphobia, some theorists have stressed the particular importance of an interactionist account of aetiology and understanding the reciprocal influences of, for example, a 'dependent' social posture, marital conflict with a concomitant desire to escape from the relationship, anticipatory fear of public places and of travel away from home.

#### Interactionist Account

Fishman (1980) provides a typical interactionist account of agoraphobia. Because the agoraphobic finds it difficult to recognise or express emotions, the unpleasant sensations deriving from seething, unexpressed hostility become attached to outside surroundings symbolic of the

conflict such as the confining surroundings of elevators, crowded buses, and so forth. The occasional stirrings of an attitude of independence serve only to bring the conflict to the fore anew. As a result of all this the agoraphobic wallows in a self-defeating rut. The conflict over dependence versus independence is not fully recognised, and consequently its offshoots - unpleasant physical sensations - may be experienced in surroundings reminiscent of conflict. Henceforth, contemplating exploits into such surroundings creates anticipatory anxiety, which provides the motivation for their avoidance. This in turn allows the sufferer to dwell on their inadequacy and irrational fearfulness, leading to depression. Attempts to rise above all of this and actively confront the problem situations are likely to fail, because the agoraphobic is by now so sensitive to signals of impending panic that they practically create them at the drop of a hat. A further cycle of self-denigration and discouragement ensues.

Accounts such as Fishman's (1980) are, of course, difficult to verify, nevertheless, the complexity of the agoraphobic syndrome seems to demand a suitably complex aetiological account.

#### Goldstein and Chambless

Chambless (1978) reviews, and finds inadequate, learning theory accounts of the aetiology of agoraphobia based on classical conditioning and operant learning. In a



'reanalysis' of agoraphobia, Goldstein and Chambless (1978) argue that a composite of behavioural and psychodynamic views is necessary to give a complete account of the aetiology of agoraphobia. People with uncomplicated fears of streets and public places do not qualify as agoraphobic because they have specific fears that are likely to respond to systematic desensitization. 'Complex agoraphobia', the more common syndrome, applies when the individual displays a constellation of clinical features including a typical personality orientation. The patient is lacking in self-sufficiency and assertiveness, and tends (mistakenly) to attribute unpleasant physical sensations to the immediate surroundings, rather than to the actual source, that is, tensions resulting from interpersonal conflict. The central phobia is of the fear reaction itself, which then, in a secondary process, allows specific surroundings to take on conditioned unpleasantness. The patient is trapped in an unpleasant set of life circumstances, often a troubled marriage (because of the lack of self-sufficiency and a general dependent posture), or act assertively to resolve the conflict constructively (because of the tendency not to recognise the existence of the conflict, and the general lack of assertive skills). The conflict is resolved, partly, by the agoraphobia, implying an inability to leave the home. Agoraphobic fears are most pronounced in settings in which the sufferer feels physically trapped, which is symbolically reminiscent of the conflict.

### An Integrated Model

Another aetiological formulation of agoraphobia has been presented by Mathews et al. (1981). It is similar to the Goldstein and Chambless (1978) account of 'complex agoraphobia' in assuming that anxiety reactions are not, initially at least, elicited by the immediate surroundings in which more phobic anxiety is experienced.

According to Mathews et al. (1981), there may be three general 'vulnerability' factors that, if operative, increase the likelihood that the individual will develop agoraphobia. These factors are over- or under-protection in the early family environment, high levels of trait anxiety, and general background stress. An increased level of general anxiety results from the combination of trait anxiety and stress, setting the scene for a panic attack to occur more or less haphazardly. If the panic attack first appears when the individual is out of doors, then agoraphobia could develop. The sufferer may attribute the panic to external stimuli, and may begin to rely more and more on dependent and avoidant behaviour patterns (particularly if the individual has previously displayed this kind of defensive behaviour). Finally, certain aversive influences (e.g. conditioned fear of public places or anticipatory anxiety about the prospect of a panic attack) discourage patients from tackling their fear, and other positive experiences (e.g. sympathy and attention from other people or being given less responsibility in the household) reinforce

staying at home.

### Cognitive-Expectancy Model

To explain the effects of various behavioural treatments for anxiety and fear Emmelkamp (1975) presented a cognitive-expectancy model. This model emphasised self observation of improvement and expectancy of therapeutic gain. He states that although all imaginal based treatments consist of exposure to the phobic stimuli it is not exposure per se which seems to be the crucial factor but self observation of improvements. Through continuous exposure to the phobic stimuli, the patient observes that the imagining of fearful situations no longer arouses anxiety (e.g. Agras 1967, Barlow et al. 1969). This self observation that phobic stimuli no longer arouse anxiety, combined with therapeutic suggestion that the patient has improved, prompts reality testing in vivo. Through successful performance in the real life situation, habituation in vivo is eventually effected. Thus, the effects of exposure depend on the attitude and set of the patient. He suggests that a more comprehensive theory of phobia development should take into account the role of interpersonal conflicts. Although the evidence on this point is less than satisfactory (Emmelkamp 1979), comprising mainly anecdotes, clinical observations do suggest the importance of clients' interpersonal relationships in the development of clinical phobias, especially in the case of agoraphobia. Moreover, a really comprehensive theory of fear acquisition should also

take into account the role that the client's system plays in the functioning of the phobic behaviour. It is not sufficient merely to point out that family members reinforce the phobic behaviour of the identified patient, their motives to do so and the reason that the patient lets them do so deserve special attention. Conceptualising interpersonal conflicts solely in terms of conditioning may seriously hinder in this area. Another point that deserves more attention is the role of individual differences in phobia acquisition. Although far from conclusive there is some evidence (Emmelkamp 1979) that level of emotional arousal, hormonal processes, and premorbid dependency may significantly contribute to the development of phobias.

#### Multidimensional Functional Analysis

Considering the complex nature of the agoraphobic condition which affects behavioural, mood and cognitive dimensions Mavissakalian (1982) concludes that what is warranted is a Multidimensional Functional Analysis of each agoraphobic patient. He considers that some patients would need a variety of interventions in combination or in sequence, and others would successfully take care of their own treatment given appropriate rationale and instructions. Based on evidence from biochemical studies that both MAO inhibitors and imipramine can effectively block panic attacks (Appelby et al. 1981, Kelly et al. 1971), he concludes that the behaviourist and the pharmacologist can work hand in hand. Both disciplines, far from being

mutually exclusive, are complementary.

#### A Safety Signal Perspective

Rachman (1984) has developed a fresh perspective on agoraphobia using as a starting point the common clinical observation that much of the behaviour associated with agoraphobia can be construed as an attempt to achieve and maintain a sense of safety. The concept of striving for safety appears in research and clinical descriptions such as Hallam (1978) who states that the cardinal feature of the agoraphobic syndrome can be described either as staying at home behaviour or avoidance of venturing out. The latter is consistent with the idea of agoraphobia as fear of discrete cues, such as streets, shops, and crowds, whereas the former implies that the fear of anxiety arises in the absence of familiarity and safety. Some of the therapeutic implications that follow from this perspective include means of strengthening existing safety cues, establishing new safety cues and exploiting the existing safety cues in order to extend the persons range of mobility. One of the main techniques for achieving some of these ends is to develop training procedures in which agoraphobics would be encouraged to move towards safety cues rather than, as at present, training them gradually and progressively to move away from their safety cues, e.g. home and trusted companion (Rachman 1983).

### Summary

The main problem with explanations of agoraphobia is, in confirming or refuting them. As Emmelkamp (1979) points out it is always possible to cite case studies in which the sequence of events is consistent with that predicted by the theory and cases which do not accord with the theory can be defined out of contention. Theories are helpful clinically in calling attention to important features of agoraphobia such as background stress and interpersonal conflict, misattribution of emotional reactions arising from outside the immediate surroundings, and the possible reinforcement of dependent and phobic behaviour. Agoraphobia, although clearly a phobic avoidance disorder, has many features in common with mood disorders like anxiety states and depression. The question remains as to why this relationship exists especially since a wide variety of other specific phobias seem not to be so closely connected with mood disorders though they share with agoraphobia the phobic features of avoidance of situations which most would regard as innocuous.

### TREATMENT

The prominent explanations of agoraphobia have been based on years of systematic research which has focussed on identifying the important procedural parameters of situational anxiety-reduction techniques, and methods in which the patient is exposed to phobic stimuli in imagination or in vivo have received by far the most

attention. Systematic desensitization involves the graded presentation of phobic material to the patient's imagination while he or she is deeply relaxed, whereas in vivo flooding confronts the patient in real life with highly anxiety provoking situations until fear eventually diminishes. After reviewing 20 years' outcome research on the behavioural treatment of agoraphobia Mathews, Gelder and Johnson (1981) concluded that treatments that do not involve exposure to the feared situation are less effective. According to these writers there is no general consensus that exposure to feared situations is an important, possibly a critical feature of the effectiveness of treatment. According to Mavissakalian (1982) a number of analogue as well as clinical studies have demonstrated the superiority of in vivo exposure to imaginal exposure.

Processes within in vivo exposure as well as in vivo exposure during treatment are, therefore, discussed but first examples of systematic desensitization, flooding and cognitive therapy are discussed.

#### Systematic Desensitization

In systematic desensitization, clients are first trained in relaxation. They then move gradually up a hierarchy of anxiety arousing situations, while remaining relaxed. It has been argued that systematic desensitization has been unhelpful in the treatment of agoraphobia because the wrong hierarchy items have been selected. (Thorpe and

Burns 1982) Usually, patients have been desensitized to situations such as shopping centres, buses, and so on, whereas what they really fear is panic. Wolpe (1969) regards the situations type of hierarchy as irrelevant, and Goldstein and Chambless (1978) have reiterated this point. 'Appropriate hierarchy items would describe sensations of fear and panic rather than the correlated environments.

In a study of systematic desensitization Gillan and Rachman (1974) used 32 phobics comprising agoraphobics and 'specific' phobics, behavioural tests in addition to self report and physiological indices, and two comparison conditions of 'pseudo-therapy' i.e. systematic desensitization to an irrelevant hierarchy, and 'psychotherapy' i.e. insight and rational therapy. Systematic desensitization to a relevant hierarchy, without muscle relaxation, produced results superior to those derived from the comparison conditions, although behavioural test results did not clearly differentiate the groups. The groups without muscle relaxation did as well as the standard systematic desensitization group.

#### Flooding

Flooding therapies are derived from the work of Stampfl (Stampfl and Levis 1967, 1968) on implosive therapy. During treatment, the therapist presents a complex of conditioned stimuli to the patient without allowing an avoidance response. The therapist tries to maximize anxiety



throughout the treatment, which eventually leads to 'extinction'. Sessions are continued until a significant reduction in anxiety is achieved.

Foa and Chambless (1978) assessed subjectively anxiety throughout flooding in imagination with agoraphobic and obsessive-compulsive patients. Patients were instructed to imagine the scenes described by the therapist as vividly as possible. Flooding sessions lasted 90 minutes. Patients had to indicate their anxiety every 10 minutes on a scale of 0-100. The results of this study showed that habituation of subjective anxiety occurs with sessions. Most often, it follows a curvilinear pattern. In addition, evidence was provided for habituation across sessions. In this study, subjective anxiety started to decline only after 50 minutes, whereas in most analogue studies, the duration of exposure during flooding is often much shorter.

#### Flooding vs Systematic Desensitization

Marks et al. (1971) sought to compare the short-term effects of flooding and systematic desensitization with sixteen patients with various phobias. Each patient received six sessions of imaginal flooding and six sessions of systematic desensitization in a balanced, cross-over pattern. The last two sessions for each group included in vivo exposure for the last hour. Assessment comprised clinical scales completed by subjects and psychiatrist, and measures of heart rate and skin conductance during phobic

imagery. Flooding was significantly superior to systematic desensitization on rating scales and on autonomic indices, although flooding produced more improvement in agoraphobia specifically, whereas systematic desensitization produced more improvement in other phobias. Patients who were initially the most anxious responded particularly well to flooding.

### Cognitive Therapy

Agoraphobics often complain of anxiety inducing thoughts. With a number of patients these negative cognitions change as a result of treatment by exposure in vivo. For example, during exposure in vivo, patients may notice that the awful things that they fear, such as fainting, or getting a heart attack do not take place. However, not all patients do change their cognitions during treatment, and in some patients, these cognitive changes are only short lived. Another point should also be noted. Although the patients are exposed to the phobic situation in vivo, real exposure may still be avoided by the patients through thoughts, as for example, this was a good day but tomorrow may be different. Thus, the patients may use private speech that interferes with live exposure to the anxiety inducing situation. Although as yet not enough research has been carried out on the effects of such negative private speech, it may be assumed that such cognitive avoidance militates against the effects of in vivo exposure.

Emmelkamp et al. 1978 compared cognitive restructuring with prolonged exposure in vivo in a crossover design. Both prolonged exposure in vivo and cognitive restructuring were conducted in groups. Each procedure consisted of five sessions. Exposure in vivo was found to be far more effective than cognitive restructuring on the behavioural measure, on phobic anxiety, and on avoidance scales. However, treatment was conducted in a relatively short time period of one week which may have been too short to result in significant cognitive changes.

In a following study (Emmelkamp and Mersch 1982) three treatments were compared in a between group design; cognitive restructuring, prolonged exposure in vivo and a combination of cognitive restructuring and prolonged exposure in vivo. Each session lasted two hours and each treatment consisted of eight sessions. During cognitive restructuring more emphasis was placed on insight into unproductive thinking than in the cognitive procedure used by Emmelkamp et al. (1978). In each session, the patients had to analyse their own feelings in terms of Ellis's ABC theory. In the combined procedure, half of the time was spent on self instructional training, the other half on prolonged exposure in vivo. During the latter phase of the combined treatment, the patients were instructed to use their positive self statements during their in vivo exercises. The results of the patients' ratings on the phobic anxiety and avoidance scales (Watson and Marks 1971)

at post-test showed that prolonged exposure in vivo and the combined procedure were clearly superior to cognitive restructuring. At the one month follow-up, however, the difference between the treatments partly disappeared because of a continuing improvement in the cognitive modification group and a slight relapse in the exposure in vivo condition. Thus, although the short term effects were similar to the results of the Emmelkamp et al. (1978) study, in the long run, cognitive modification was about equally effective. Self instructional training did not enhance the effects of exposure in vivo.

#### In Vivo Exposure to Feared Situations

In vivo exposure, as Mathews, Gelder and Johnson (1981) state may be a critical aspect of the treatment of fear. In the best of conditions the patient will confront phobic situations and habituation will take place. With repeated exposure to various stimuli, generalisation will occur and the multiple fears as well as the spontaneous panic attacks will ultimately extinguish. The plan is simple and effective.

Anxiety during Exposure: Subjects must be prepared for exposure especially with respect to the initial anxiety they will experience on entering the situations they have previously avoided. The risk in a treatment utilising a prolonged exposure paradigm, however, is that when panic sets in the patient will prematurely terminate exposure,

resulting in further sensitisation. (Mathews, Gelder and Johnson 1981, Linden 1981, Wilson and O'Leary 1980, Bandura 1969, Emmelkamp 1982, Eysenck 1982, Mavissakalian 1982, Thorpe and Burns 1983) The patient is therefore, persuaded to remain in the phobic situation for periods which are long enough to allow the discomfort to lessen or extinguish. The patient thus learns that avoidance is not necessary to attain relief of anxiety, and acquires a sense of mastery over the phobia. (The Quality Assurance Project, 1982) In a study on the role of anxiety in flooding with agoraphobics, Chambless et al. (1979) concluded that the experience of anxiety during flooding enhances the technique's effectiveness.

In a preliminary study, however, de Silva and Rachman (1984) concluded that their study provided preliminary data that escaping and/or avoiding while still fearful does not necessarily lead to increased fear and to increased avoidance. They compared two groups of agoraphobic patients. Group A (n=6) were exposed to a selected fear-provoking situation and were instructed not to leave until the anxiety dropped at least to half of peak anxiety felt. Group B (n=6) were asked to approach the fear provoking situation, but were instructed to leave when subjectively felt anxiety reached 75% of the maximum anxiety felt in the target situation. They report that there was no significant difference between the two treated groups. However, group A's subjective rating decreased from 4.5 to

3.2 whereas group B's rating decreased from 4.2 to 3.2 - a difference favouring the endurance group over the escape group. The results, therefore, do not appear to challenge the well founded view that subjects should remain in their feared situation until anxiety has reduced.

Massed vs Spaced Exposure Sessions: According to Foa et al. (1980) the effect of the interval between sessions on treatment outcome has been the focus of numerous studies. In reviewing 16 studies Orlinsky and Howard (1978) noticed that only one report indicated a negative relationship between frequency of sessions and outcome. Foa et al. (1980) tested the differential effects of massed and spaced sessions. They used a cross-over design with two groups of subjects, i.e. (a) 10 daily sessions followed by 10 once weekly sessions and (b) 10 once weekly sessions followed by 10 daily sessions. Their hypothesis that massed practice would effect greater reduction in avoidance and anxiety was supported.

Exposure based treatment: Variations on exposure based treatments are available and these are discussed in relation to each response system.

The exposure based treatments available include reinforced practice, flooding, modelling and contact desensitisation which can be viewed as focusing on the behavioural component. Techniques such as stress inoculation training and systematic rational restructuring

concentrate on the cognitive component, while the physiological component is the primary target for relaxation methods, anxiety management training, systematic desensitization and biofeedback. Naturally, some of the techniques contain aspects of more than one component but the above categorisation is based on each technique's primary characteristics. However, even though these therapies relate to the particular response systems studies are rarely designed which relate these to an individual subject's characteristic way of responding.

Emmelkamp et al. (1982, 1978) for example, focused on cognition and in vivo exposure in two of their studies and found that 'prolonged exposure in vivo proved to be a definitely superior form of treatment to cognitive restructuring'. However, in one study they selected a group of subjects homogenous with respect to severity, and in the other their group consisted of a heterogenous selection of subjects. Thus, his primary concern was with the effects of treatment rather than with the interaction of treatment and subject characteristics with respect to their individual mode of responding.

Williams et al. (1983) sought to enhance generalisation of cognitive therapy for phobias by teaching agoraphobics cognitive techniques during behaviour (driving) practice. Thus, subjects were homogenous for driving phobia. They found following treatment that cognitive therapy subjects used significantly more coping thoughts

while driving than practice only subjects. However, their second hypothesis, that cognitive therapy subjects would overcome their fears more completely than non-cognitive therapy subjects, was not confirmed. The latter finding may have been due to the fact that the predominant response characteristics of the sample were not partialled out.

Ost (1981, 1982) has recognised the importance of individual response patterns and has completed two studies. One in 1981 with social phobics and the second in 1982 with claustrophobic subjects. In his 1981 study, on the basis of their reactions in a test situation, the patients were divided into two groups showing different response patterns i.e. behavioural and physiological reactors. Within each group half of the patients were randomly assigned to a behaviourally focused method (social skills training) while the other half received a physiologically focused method (applied relaxation). The patients were treated individually in 10 sessions. The within group comparison showed that both treatments yielded significant improvements on most measures. The between group comparisons showed that for the behavioural reactors, social skills training was significantly better than applied relaxation on six out of the ten measures, and for the physiological reactors applied relaxation was significantly better than social skills training on three of the measures. The results support the hypothesis that greater effects are achieved when the method used fits the patient's characteristic way of responding. A



similar conclusion was reached in his 1982 study with claustrophobic subjects.

The findings of Ost, emphasise the need for therapists to attend more closely to the individual client's characteristic way of responding.

#### Follow-up

A number of studies have shown that the behavioural treatment of agoraphobia is associated with substantial improvements that persist for at least six months (Gelder et al. 1973, Mathews et al. 1976, Mathews et al. 1977).

A long term follow-up of 66 agoraphobic patients was carried out by Munby and Johnston (1980), between five and nine years after their treatment. They found that on most measures of agoraphobia the patients were much better at follow-up than they had been before treatment.

Emmelkamp et al. (1979) followed 70 agoraphobic out patients for four years after treatment and found that the improvements manifested during treatment were maintained and partly augmented.

Similarly, McPherson et al. (1970) found that when 56 agoraphobic patients, who had shown clinical improvement when treated by behavioural methods, were followed-up between 3.0 and 6.3 years later improvement had been maintained.

These findings, therefore, suggest that the majority of subjects who complete treatment will maintain their improvement over a considerable period of time.

#### ASSESSMENT

Despite the fact that the variations in individual response patterns have been well documented, few studies have actually sought a treatment programme which is designed specifically for these components. In general, studies of agoraphobic subjects have been concerned with applying a specific method of treatment to a heterogenous group of subjects. The outcome measures employed in these studies evaluate the effectiveness of the treatment package rather than the interaction of treatment effectiveness and subject characteristics.

Currently, the major problem to be overcome is how to validly assess the subject's anxiety response characteristics in terms of cognitive, behavioural and physiological systems. Methods of assessing these systems as well as problems associated with such measures are, therefore, discussed.

#### Individual Response Patterns

The notion of individual response patterns in phobic patients when confronted with an anxiety arousing situation has been elaborated on by Rachman (1976, 1978). Given that phobic anxiety is currently conceptualised as consisting of three components, i.e. cognitive-subjective,

overt-behavioural, and physiological, eight patterns of responding are possible. Four of the possible patterns have subjective fear coupled with different combinations of behavioural and physiological anxiety. These patterns of responding are illustrated in Table A.

Rachman (1974) and his associates have shown that the three response systems may covary, vary inversely or vary independently. At various times, when fear and avoidance are not co-varying, one can speak of a discordance between the two at any particular point. When there is a high correlation between the two then one has concordance. The terms synchrony and de-synchrony have a similar but not identical meaning to that of concordance and discordance. It is suggested that synchrony and desynchrony should be restricted to changes in fear and avoidance which either vary together (synchrony), or vary independently or inversely (in both of these cases, one has de-synchrony).

Table A  
Patterns of Responding

Pattern	Subjective Fear/Anxiety	Behavioural Fear/Anxiety	Physiological Fear/Anxiety
I	+	+	+
II	+	+	-
III	+	-	+
IV	+	-	-

Measurement Problems

Hugdahl (1981) suggests that the cognitive dimension, which is possibly the most difficult to define has been conceptualised in at least three different ways:

1. 'self perceived autonomic arousal which is labeled as anxiety'
2. 'anticipatory fear and anxiety in the form of worry, brooding about the coming fear provoking event'

3. 'changes in mood and feelings of unreality, uncontrollability, guilt, self blame, etc., exposed to the phobic stimulus (or when thinking about the stimulus)'.

(Hugdahl 1981)

The conceptualisation of the cognitive component used by different researchers will affect the type of information gathered and the relationship of the cognitive measures to physiological and behavioural measures.

Rachman (1978) points out that a person's fear of a situation and her/his willingness to enter that situation may not be related. This suggests that at least two subjective/cognitive measures are important, that is, a measure of intensity of phobic anxiety and a measure of the person's prediction of his/her behaviour in that situation. Bandura's (1977) concept of self efficacy along with the microanalysis described by him provide a framework for measuring these dimensions.

Hugdahl (1981) also suggests that there are measurement problems associated with the behavioural component of anxiety. He mentions, for example, that a person's behaviour in a fear situation can be affected by the person's use of covert avoidance techniques such as blunting (Miller and Grant 1979) and covert pep-up talks (Meichenbaum

1977). Rachman (1978) also suggests that the demands placed on a person will affect his/her behaviour in a fear situation.

Given that these and other factors affect measures of overt behaviour, assessment of overt behaviour should include (1) measures with an adequately high ceiling so that the effects of differential demand levels and distraction factors can be accommodated, (2) measures taken in a variety of settings. A fear hierarchy is normally used as the basis for the behavioural test.

The third of the anxiety components, physiological responsivity, presents fewest problems for assessment purposes. Hugdahl (1981) and Rachman and Hodgson (1980) both suggest that heart rate measures are conveniently obtained and valid measures of physiological arousal.

Lehrer and Woolfolk (1982) have designed a 36-item symptom questionnaire which measures the three anxiety components, i.e. somatic, behavioural and cognitive. The 36-items in the questionnaire were derived from an original pool of 112 items which were tested on both analogue and clinical populations, ( $n=877$ ). Split-half reliabilities are reported for two studies as being .85/.93 for the somatic factor, .84/.97 for the behavioural factor, and .83/.92 for the cognitive factor. The validity of the questionnaire was tested in three studies, with a total of 195 subjects, using a number of measures. Examples (cited in Lehrer and

Woolfolk 1982) include the IPAT Anxiety Inventory (Krug et al. 1976), Eysenck Personality Inventory (Eysenck and Eysenck 1968), Hopkins Symptom Checklist, SCL-90R (Derogatis 1977). Data from these validation studies suggest that the scales are valid measures of the three kinds of anxiety.

### HYPOTHESIS

The hypothesis to be tested in the study was that treatment would be more effective if it were matched with a subject's predominant anxiety response characteristic than if it were applied to a heterogeneous sample of subjects.

It is already apparent in the literature that subjects can be categorised on the basis of their anxiety response, into cognitive, behavioural or somatic responders. It is also apparent that there are treatments currently available which focus on the cognitive, behavioural or somatic responses.

Therefore, it was hypothesised that if subjects whose predominant anxiety response was cognitive were taught a cognitive coping strategy, they would improve to a greater extent than if they were taught a non-cognitive coping strategy. Similarly, non-cognitive subjects, i.e. behavioural or somatic responders, would benefit more from a non-cognitive coping strategy than they would from a cognitive coping strategy.



#### METHOD

The hypothesis to be tested was that matching a subject's predominant anxiety response with method of treatment would be more effective than randomly assigning a heterogeneous group of subjects to a method of treatment. To test this hypothesis a  $2 \times 2 \times 2$  design with repeated measures on one factor was selected involving two types of subjects and two types of treatment. The two types of subjects were cognitive responders and non-cognitive responders (i.e. behavioural and somatic), and two types of treatment were thought stopping/restructuring and relaxation training. Subjects characteristic anxiety response system was identified by means of the Lehrer and Woolfolk Symptom Questionnaire. By assigning cognitive and non-cognitive subjects randomly to either cognitive or non-cognitive treatment, a comparison between matched and unmatched subjects was possible. This between group comparison investigated any differences between the two treatment groups. The within group comparison investigated any progress made by the subjects during treatment.

#### Sample

The sample of subjects was drawn from two sources, (1) an advertisement (see appendix A1) placed in two local daily newspapers for two days, and (2) Memorial University Psychology Department Clinic waiting list.

Initial interviews were arranged for all 13 subjects who responded to the advertisement, and for the 8 subjects on the waiting list. Of these 21 subjects, 5 did not show up and when contacted again by telephone reported that they were no longer interested in attending the group. From the 16 subjects attending initial interviews 14 entered treatment. Of the two remaining subjects one was unsuitable for group treatment as he was of borderline intelligence. The other took a job which required her to work at the times of the group sessions. (It is thought that the response to the advertisement was low because of an advertisement placed a few weeks earlier for an anxiety management treatment programme which received 59 replies).

All subjects satisfied the DSM III criterion for agoraphobic symptoms and admitted to agoraphobic symptoms on the Marks and Mathews Fear Questionnaire. Once it was established that subjects satisfied these criterion, as well as contracting themselves to the programme, they were included for treatment.

Demographics The characteristics of the sample are illustrated in Table 1.

Table 1

Characteristics of the sample

Age	Sex	Marital Status
Mean - 40 years	Male - 3	Married - 11
S.D. - 8.5	Female - 11	Single - 3
Education	Employed	
Less than grade 11 - 4	Gainfully employed	- 7
High school (grade 11) - 3	Not gainfully employed	- 7
College/University - 7		
Precipitant	Length of Illness	
Clear event remembered - 5	Mean - 4.4 years	
Stressful period - 5	S.D. - 10.6	
None remembered - 4		
Previous Treatment	Medication	
Yes - 5	Yes - 5	
No - 9	No - 9	

Subject Assignment

The hypothesis tested was that matching would be more effective than not matching subjects with treatment, on the basis of their predominant anxiety response. In order to do this subjects were categorised by means of the Lehrer and Woolfolk Symptom Questionnaire (see appendix A2) which

measures somatic, behavioural and cognitive anxiety. The somatic, behavioural and cognitive scales contain an uneven number of questions, therefore, the subjects' raw scores on each scale were calculated as a percentage of the respective scale total. This procedure allowed a comparison between the three scales. Those subjects whose highest percentage score was on the cognitive scale were categorised as Cognitive Subjects (n=7), and those whose highest percentage score was on the somatic or behavioural scale were categorised as Non-Cognitive Subjects (n=7).

Cognitive and non-cognitive subjects were randomly assigned to one of two treatment groups. Both group treatments involved in vivo exposure to a feared situation, but in addition the focus of one group was Cognitive Treatment i.e. thought stopping/restructuring, and the focus of the other group was Non-Cognitive Treatment, i.e. relaxation training.

With two subject categories and two treatment categories, the basis was formed for the assignment of a matched and an unmatched group of subjects. The assignment of subjects to treatment is illustrated in Table 2.

Table 2

Subject Assignment to Matched/Unmatched Groups

	Cognitive Treatment (CT)	Non-Cognitive Treatment (NCT)	Total
Cognitive Subjects (CS)	3 (M)*	4 (U)**	7
Non-Cognitive Subjects (NCS)	3 (U)	4 (M)	7
Total	6	8	14

\* Matched \*\* Unmatched

Table 2 illustrates that the Matched Group (n=7) consisted of 3 cognitive subjects receiving cognitive treatment, and 4 non-cognitive subjects receiving non-cognitive treatment. The Unmatched Group (n=7) consisted of 4 cognitive subjects receiving non-cognitive treatment, and 3 non-cognitive subjects receiving cognitive treatment.

A total of 6 subjects (3 matched and 3 unmatched) receiving cognitive treatment, and 8 subjects (4 matched and 4 unmatched) received non-cognitive treatment.

### Therapist

Two therapists were involved in the study. One conducted all initial interviews and individual assessment sessions. Both therapists were involved in the running of all group therapy sessions as well as the first follow-up session.

### Apparatus

A San-ei pulse monitor, attached to the subject by means of a finger clip, was used to monitor subjects' pulse rates. The reading from the monitor was fed into a Sony Stereo Tape recorder TC-252 on a Sony Recording Tape PR-150. A permanent record was obtained from this tape on a Beckman Type R411 Dynograph Recorder. Subjects sat in a reclining chair.

### EVALUATION OF TREATMENT PROGRAMME

A total of 17 self-report scales were completed by the subjects during treatment. In addition, subjects' pulse rate was recorded by a therapist during two resting stages and three imagery stages. Subjects' verbal report on the imagery stages was recorded by a therapist.

#### A. Pre-treatment Evaluation

During the initial interview a self-reported baseline level was taken of the subjects' anxiety response characteristics, mood i.e. anxiety and depression, fear/phobia, behavioural expectation and a test to determine

their understanding of agoraphobia.

A second pre-treatment monitoring session was held during which a therapist recorded subjects' pulse rate and verbal comments during imagery. These measures are discussed in more detail below.

Anxiety Response Characteristics: In order to identify each subject's predominant anxiety response characteristic the Lehrer and Woolfolk Symptom Questionnaire (see appendix A2) was completed by each subject. This questionnaire contains a somatic, behavioural and cognitive symptom scale, each of which is rated on a scale of 0-8 (i.e. never to extremely often). The score from each symptom scale was totaled and converted to a percentage score. The highest percentage score obtained was taken as the subject's predominant anxiety response.

Mood: Subjects' mood was assessed on three scales which measure levels of anxiety and depression.

(i) The Lehrer and Woolfolk Symptom Questionnaire: The total score obtained on the symptom questionnaire, which again was converted to a percentage score, provided a measure of the subjects' anxiety level. This scale was used in order to assess subjects initial level of anxiety.

(ii) Beck Depression Inventory: The B.D.I. was completed by each subject in order to assess their initial level of depression. (See appendix A3).

(iii) Mood Scale: The mood scale was a sub-scale of the Marks and Mathews Fear Questionnaire and contains five questions relating to feelings of anxiety and depression. These questions are more specific to phobic anxiety, and associated feelings of panic and depression, than the Lehrer and Woolfolk Symptom Questionnaire and the Beck Depression Inventory. Therefore, the mood scale provided an initial assessment of mood in the context of fear/phobia. (See appendix A4)

Fear/Phobia: The Marks and Mathews Fear Questionnaire was completed by each subject and provided a baseline of their fear/phobia symptoms on three scales. (See appendix A4)

(i) Fear: This scale contains 15 questions which relate to agoraphobia, social anxiety and fear of blood and injury. The total score obtained for these 15 questions provided a measure of total fear.

(ii) Agoraphobia: The agoraphobia scale contains five questions relating specifically to agoraphobia. Since the treatment programme was specifically designed for agoraphobic subjects, it was necessary that all subjects admit to agoraphobic symptoms on this scale.

(iii) Incapacity: On this scale subjects were asked to rate the present state of their phobic symptoms on a scale of 0-8. A score of 0 represents 'no phobias present' and a score of 8 represents phobias present which are 'very



severely disturbing/disabling'. The scale is, therefore, a self-rating scale of level of incapacity due to phobic symptoms. An initial self-rated level of incapacity was obtained from this scale.

Self Efficacy Expectations: In order to assess each subject's self efficacy expectations, in relation to exposing themselves to their feared situations, a hierarchy was constructed by them on which two measures of self efficacy expectations were taken.

Hierarchy: Each subject provided a 15-item hierarchy of feared situations which they could expose themselves to during treatment. The methodology for the construction of the hierarchy was that described by Mathews (1981). Each subject was required to list their 15-items, in order of difficulty, on alternative lines of a 30-line page. This allowed for the possibility of inserting sub-items. (See appendix A6).

(i) Confidence Level: Once each subject had constructed their hierarchy they were asked to rate, on a scale from 0-100%, how confident they were that they could expose themselves to each feared situation identified by them. This procedure follows the microanalysis of Bandura (1977).

(ii) Can Do: For each item on the hierarchy subjects were also asked to record a 'Yes' or 'No' response according to whether or not they could expose themselves to each feared situation identified by them.

Understanding of Agoraphobia: The final, pre-treatment measure was a questionnaire which was constructed from the Client's Manual provided by Marks and Mathews (1981). (See appendix A5) The manual describes to subjects the causes of agoraphobia, how it is maintained, and how it is treated. At the end of each section a multiple choice question is asked about the content of the section. The questionnaire, completed by each subject, contained 24 questions from the client's manual. (See appendix A12)

This questionnaire was completed by each subject before any discussions about agoraphobia had taken place. This was done in order to assess their understanding of agoraphobia before the programme was explained to them.

Pulse Rate: During the monitoring session, pulse rate was recorded under 5 conditions consisting of 2 resting stages and 3 stages during which the subject imagined themselves to be in one of their feared situations. The 3 feared situations were selected from the subject's hierarchy. The items selected for all subjects, and presented to them in order of increasing difficulty, were the 1st, 7th and 15th item from their hierarchy.

Prior to monitoring, each subject was instructed in the characteristics of clear imagery. They were required to imagine themselves as being in the situation not just observing the situation. While in the imagined situation they were asked to pay attention to details such as faces, feelings, sensations, smells, words. Once they had a clear image of the situation they were instructed that they should explain exactly what they were doing, how they felt, and what they were thinking about the situation. This was tape recorded by the therapist.

Procedure for Pulse Rate: Baseline pulse rate was obtained by asking subjects to sit comfortably in a reclining chair with their feet up. They were instructed to limit their movement and to rest for five minutes. The final one minute of this five minute period was taken as their base pulse rate.

Subjects were then asked to imagine themselves in their least fear provoking situation listed on their hierarchy, and to indicate, by lifting their finger, when they had achieved a clear image of the situation. The point at which this occurred was recorded against their pulse rate in order to distinguish the increase in pulse rate due to speech. Subjects then described the situation they were imagining and their reactions to it.

On completion of their description subjects were instructed to rest for a few minutes. This interval was also recorded throughout and once their pulse rate had returned to the resting level the next feared situation from their hierarchy was introduced.

The same procedure as described above for item 1 was followed for the 7th and 15th items on the hierarchy. The highest pulse rate reached during each image was classed as the Image I, Image II and Image III pulse rate, image I being the lowest fear situation. An overall pulse rate during imagery was calculated by taking the mean of the three imagery stages for each subject. This mean is referred to as the Imagery Pulse Rate.

After all three situations had been completed, subjects were again asked to rest for five minutes. The final one minute of this stage was classed as the rest level.

Procedure for Scoring Imagery: A transcript was made from the tape recordings of the subjects' comments during the image stage. Each comment was then categorised according to the following criterion outlined by Beech (1983) in his description of the stress response.

- (1) Physiological: heart rate increased  
blood pressure elevated  
muscular tension  
slowing down of digestive system  
adrenalin or noradrenalin released

- (ii) Behavioural: decreased performance level  
avoidance of stressful situations  
passivity/inertia
- (iii) Cognitive: distortions of thinking  
lowered intellectual functioning  
unproductive, ruminative,  
anxiety-generating patterns of  
thinking  
indecisiveness

An additional general category was also required for items such as 'its fine' which were not specific enough for inclusion in one of the other categories. Subjects were divided on the basis of their highest category score. For example, a subject whose comments were predominantly physiological was placed in the somatic category.

#### B. Weekly Evaluation

During the five weeks of therapist-assisted treatment subjects recorded daily their anxiety level, medication level, quality of thought stopping/relaxation practice, and goals achieved. At each weekly session subjects completed the Beck Depression Inventory and rated the items on their hierarchy in terms of self efficacy and 'can do' levels.

Anxiety Scale: This scale was completed daily by each subject during the 5 weeks of therapist-assisted treatment. On a scale of 0-8, i.e. hardly at all - very anxious, subjects were asked to rate how anxious they were at four

points in the day. These four points included 1) getting up, 2) before lunch, 3) before dinner, and 4) going to bed. This anxiety scale was used in order to help both therapist and subject identify any patterns which may have been present in their level of anxiety during the day. Their anxiety ratings helped subjects identify their best and worst times of the day, possible causes and possible solutions such as a change in their daily routine. (See appendix A8)

Medication level: The quantity, type and strength of medication taken each day (morning, afternoon and evening) was recorded, if applicable, by each subject. This was included in order to assess any change in performance which could be attributed to medication level. (See appendix A9)

Quality of Thought Stopping/Relaxation Practice: In order to identify any problems encountered, or progress made, each subject was asked to rate daily how effective their practice of one of these techniques had been. A nine point rating scale was used which ranged from 0-8, i.e. hardly any - very effective. Subjects were asked to practice, and rate the quality of their practice, twice a day during each of the 5 weeks of therapist-assisted treatment. (See appendix A9, All)

Goals: Each week subjects were asked to select from their hierarchy at least one feared situation which they would expose themselves to, three times, before the next

session. Subjects progressed through their hierarchy at their own pace either by moving to a higher level each week or remaining at one level for two or more weeks. (See appendix A7)

### C. Outcome Evaluation

Outcome was evaluated during the final week of the 5 weeks of group treatment (post 1), 7 weeks after the final treatment session during which they followed the programme on their own (post 2) and after a further 6 months of self-paced treatment (post 3).

Post-treatment 1: During the final treatment session each subject was again assessed on their anxiety response characteristics by means of the Lehrer and Woolfolk Symptom Questionnaire. Their mood was assessed in terms of anxiety and depression using the Lehrer and Woolfolk symptom questionnaire to measure anxiety, the Beck Depression Inventory to measure depression and the Mood Scale from the Marks and Mathews Fear Questionnaire. Fear/Phobia and Level of Incapacity were assessed on the Marks and Mathews Fear Questionnaire, and Self Efficacy Expectations, i.e. confidence level and 'can do', were recorded by each subject on their hierarchy.

An additional individual assessment session was also scheduled during which pulse rate and imagery were recorded as previously detailed.

Post-treatment 2: After 7 weeks of self-paced treatment a group session was held and subjects were asked to complete the same 11 self-report scales that had been completed during the post 1 assessment session. Individual assessment sessions were also held at this time in order to record pulse rate and imagery for each subject.

Post-treatment 3: A final assessment session was held after a further 6 months of self-paced treatment. The 11 self-report scales described for post 1 were again completed by each subject. Pulse rate and imagery were not recorded at this time.

#### GROUP TREATMENT PROGRAMMES PROCEDURE

The purpose of the study was to test the effectiveness of matching subject's anxiety response with a treatment programme. It was, therefore necessary to ensure that the treatment chosen was one which had previously been tested and proven effective. As a result the procedure was based on the work of Liddell (1983) and Liddell et al. (1984).

Since the most effective component in the behavioural treatment of agoraphobia has been shown to be in vivo exposure this method of treatment was used with all subjects. In addition to this, and since the two subject categories were cognitive and non-cognitive, both a cognitive and a non-cognitive method of treatment were required for the purpose of matching subjects and treatment. The cognitively based treatment selected was thought stopping/ restructuring and the non-cognitively based



treatment selected was relaxation training. The main reason for choosing these methods of treatment being that there was no overlap between them in terms of anxiety response characteristics. The distinction between cognitive and non-cognitive procedures was carefully maintained for each group, and any discussion about anxiety response was directed towards either thoughts or physiological responses with the cognitive and non-cognitive groups respectively.

#### Group sessions

Group sessions were held weekly and each group met for two hours. One session was held between 2.00 - 4.00 p.m. and other between 6.00 - 8.00 p.m. both on the same day of each of the 5 weeks of treatment.

PROCEDURE

A total of 11 sessions are described in the following procedure and these are summarised below:-

Pre-treatment Sessions

- Session 1: Initial interview
- Session 2: Monitoring of pulse rate/imagery

Group Treatment Sessions

- Session 3: )
- Session 4: ) 5 weeks of
- Session 5: ) therapist-assisted
- Session 6: ) treatment
- Session 7: )

Follow-up Sessions

- Session 8: Monitoring of pulse rate/imagery
- Session 9: 7 week group follow-up session
- Session 10: Monitoring of pulse rate/imagery
- Session 11: 6 month group follow-up session

## PRE-TREATMENT SESSIONS

### Session 1

An initial interview with each subject was directed towards obtaining an overview of the client's presenting problem, a personal history, previous treatment and their willingness to comply with the treatment programme. In addition, the treatment programme was explained to the subject including the need for a 15-item hierarchy of their feared situations. They were instructed on how to construct this and asked to complete their list before the next session.

At the beginning of the session they were asked to complete the Lehrer and Woolfolk Symptom Questionnaire, the Beck Depression Inventory, and the Marks and Mathews Fear Questionnaire. These baseline measures were taken in order to assess each subject's level of depression, fear and anxiety on entering treatment. The Lehrer and Woolfolk Symptom Questionnaire was required at this time for subject assignment to either matched or unmatched group treatment.

In addition, subjects were tested on their level of understanding of agoraphobia.

## Session 2

The second session again was an individual session and was used to formalise a working hierarchy with each subject on the basis of the items they had selected for treatment. Confidence levels were recorded for each item on the hierarchy with respect to how confident they were at that time that they could expose themselves to each situation. Also, for each item they recorded a positive or negative 'can do' response indicating whether or not they could expose themselves to each situation.

In addition, during this session pulse rate and imagery were recorded as previously detailed under procedure for pulse rate.

## TREATMENT SESSIONS

### Session 3

Both Groups: All subjects recorded their confidence level and 'can do' responses on their hierarchy. Subjects selected one or two goals from the hierarchy and recorded these on a goal sheet as their record of what they aimed to achieve during the following week. It was recommended that subjects select one goal for exposure three times during the following week.

The anxiety scale, medication record and quality of thought stopping/ relaxation practice forms were distributed for completion during the week. The Beck Depression Inventory was distributed for completion prior to attendance at the next session.

**Cognitive Group:** The role of negative thinking in anxiety was explained to the subjects, and related to their thoughts about, preparation for, and exposure to, feared situations. They were instructed in thought stopping techniques such as snapping an elastic band on their wrist, counting backwards or focussing on some aspect of interest in their immediate environment. Subjects were instructed to practice these methods of thought stopping two times a day over the following week and to record, on a scale from 0-8, how effective they had found this method of controlling their thoughts.

**Non-Cognitive Group:** The physiological reaction to stress was described to the subjects and this was related to their response to an anxiety provoking situation. Relaxation training was explained as a method of coping with their anxiety response and as a strategy to be used by them in preparation for in vivo exposure. They were instructed in relaxation training following the method described by Borkovec (1973). Subjects were requested to practice relaxation two times a day and to record, on a scale ranging from 0-8, their perceived level of the quality of relaxation achieved.

#### Session 4

Both groups: All questionnaires distributed during the previous session for completion by the subjects were collected and reviewed. Subject's attention was directed to their anxiety scale with a view to helping them identify any patterns which may exist in their anxiety level either daily or over the week. Various methods of dealing with identified periods of heightened anxiety were discussed. These centred around the beneficial effects of altering their daily routine to accommodate periods of free time.

Confidence levels and 'can do' ratings were recorded for each item on their hierarchy and goals were selected for exposure during the following week. Depending on their progress during the previous week subjects either selected new goals from their hierarchy or selected to further expose themselves to the previous week's goals.

Each questionnaire distributed in session 3 was again distributed for completion by the subjects during the following week.

Cognitive Group: Subject's awareness of negative thoughts over the previous week was reviewed and their ability to utilise thought stopping was discussed. In addition, during this session subjects' thoughts were discussed in relation to their preparation for, and exposure to, a feared situation. Subjects were encouraged not to dwell on the negative aspects of the situation but to

mentally rehearse their exposure and adopt a more positive outlook during exposure.

Non-Cognitive Group: Subjects' progress over the previous week was reviewed and their ability to practice and utilise relaxation training was discussed. They were again instructed in relaxation training following Borkovec (1973).

#### Session 5

Both Groups: With both groups, progress during the previous week was reviewed and discussed. A copy of Marks and Mathews Client's Manual was then distributed to all subjects. This manual was explained to the subjects and all were given a card on which to write the Ten Rules for Coping given in the manual. Subjects were instructed to carry this card with them and to review the ten rules during any period of difficulty while exposing themselves to a fear provoking situation.

Although the outline of this session was identical for both groups, during the explanation of the manual the emphasis was placed on non-cognitive reaction with the non-cognitive group and cognitive reaction with the cognitive group.

In keeping with the education focus of the treatment programmes the importance of understanding agoraphobia was emphasised. On this basis subjects were informed that they would be tested on their understanding during the following

session.

During the remainder of the session, questionnaires completed during the previous week were collected and discussed. Confidence levels and 'can do' levels were recorded, goals were selected, and copies of the questionnaires were distributed for completion during the following week.

#### Session 6

Both groups were tested on their understanding of agoraphobia at the beginning of the session. After this was completed the manual was discussed with both groups in order to clarify any questions they may have had. Again any explanation focused on either non-cognitive or cognitive reactions in keeping with the group's treatment. Subject's use of the ten rules for coping was discussed and the continued use of the card was encouraged. The remainder of this session was as previous sessions when questionnaires were collected, discussed and new questionnaires distributed.

#### Session 7

This was the final treatment session for both groups and was used to prepare subjects for the seven weeks during which they would continue on their own until follow-up. Previous sessions were reviewed with all subjects including their test results on their understanding of agoraphobia.



Their ability to utilise either non-cognitive or cognitive coping strategies was discussed alongwith any problems or questions which had arisen since the previous session.

The remainder of each group session was used to review questionnaires completed during the previous week and to distribute goal sheets for each week until follow-up. These would be used by the subjects as their own record of goals planned and achieved.

The Marks and Mathews Fear Questionnaire and the Lehrer and Woolfolk Symptom Questionnaire were completed during the session by all subjects. These outcome measures taken at this point were for the purpose of comparison with the pre-treatment measures. These post-treatment measures are further referred to as Post 1.

#### POST-TREATMENT SESSIONS

##### Session 8

This was an individual session conducted immediately after treatment during which each subject's pulse rate and imagery were recorded. The procedure was identical to that in session 2. Session 8 is also further referred to as Post 1.

Session 9 : Seven week group follow-up session

Subject's progress was reviewed over the seven weeks since the last treatment session, and any problems encountered were discussed with the group.

During the session confidence levels and 'can do' levels were recorded for each item on the hierarchy. In addition, the Beck Depression Inventory, Marks and Mathews Fear Questionnaire, and the Symptom Questionnaire were completed. The questionnaires completed during this session were the 7 week follow-up outcome measures and are further referred to as Post 2.

Session 10

This was an individual session for each subject during which pulse rate and imagery were recorded following the procedure previously detailed. This session is also referred to as Post 2.

Session 11 : 6 month follow-up group session

A final post-treatment assessment session was held 6 months after the post 2 session. Progress was reviewed and subjects were asked to complete the Lehrer and Woolfolk Symptom Questionnaire, the Beck Depression Inventory and the Marks and Mathews Fear Questionnaire. In addition their confidence levels and 'can do' ratings were recorded for each item on the hierarchy. This session is further referred to as Post 3.

# RESULTS

The aim of the present study was to investigate the validity of matching a subject's predominant anxiety response characteristic with a corresponding treatment. It was hypothesised that by, for example, offering a subject whose predominant anxiety response was cognitive a cognitively based treatment programme, they would show a greater improvement than a cognitive subject who was offered a non-cognitively based treatment.

In order to test for any differences between the four combinations of matched and unmatched groups shown in table 3 an analysis of variance was carried out on each of the 11 main outcome measures.

Table 3

Four Combinations of Matched/Unmatched Groups

Matched	Cognitive subject/Cognitive treatment
	Noncognitive subject/Non-cognitive treatment
Unmatched	Cognitive subject/Non-cognitive treatment
	Non-cognitive subject/Cognitive treatment

The 11 main outcome measures tested are listed in table

4.

Table 4

Main Outcome Measures

Anxiety Response Characteristics

Cognitive Symptoms

Behavioural Symptoms

Somatic Symptoms

Mood

Total Anxiety

Beck Depression Inventory

Mood

Fear/Phobia

Total Fear

Agoraphobia

Incapacity

Self Efficacy Expectations

Confidence Level

'Can Do'

Due to the small number of subjects included in the study, which was further reduced by missing data, the analyses of variance were carried out on the pre-treatment and 6 month follow-up data. These were the only two points in the study at which data was available for all subjects.

#### Attrition

The attrition was very small since of the 14 subjects entering treatment only one dropped out. This subject preferred individual treatment to group therapy. One subject dropped out after the five treatment sessions. She was hospitalised after the death of her mother. A third subject did not attend the follow-up session after 7 weeks of self-paced treatment (post 2) apparently because of business commitments. At the final follow-up session (post 3) data was collected from all 14 subjects.

#### Comparison of groups on pre-treatment data

Prior to carrying out the analysis of variance a comparison was made between matched/unmatched groups, cognitive/non-cognitive subjects and cognitive/non-cognitive treatment groups in order to identify any significant differences which may have existed between them.

No significant differences were found on variables such as age and education etc. and the data obtained for each group are shown in table 5. The following abbreviations are used as headings in table 5: MG - Matched Group; UMG -

Unmatched Group; CS = Cognitive Subjects; NCS =  
Non-Cognitive Subjects; CT = Cognitive Treatment; NCT =  
Non-Cognitive Treatment.

Table 5

Comparison of groups on pre-treatment data

Mean Values	MG	UMG	CS	NCS	CT	NCT
Age (years)	41.14	38.85	41.14	38.85	43.66	37.2
Education (grade)	11.42	11.14	11.66	11.14	11.00	11.50
Length of illness (years)	10.57	6.71	8.57	8.71	13.83	4.75
Previous treatment						
Yes	2	3	2	3	1	4
No	5	4	5	4	5	4
Medication						
Yes	1	4	2	3	2	3
No	6	3	5	4	4	5
Employed						
Yes	4	3	5	5	2	5
No	3	4	2	2	4	3
Sex						
Male	2	1	2	1	1	2
Female	5	6	5	6	5	6

# Group Differences

Group differences were tested before and after treatment. The significant t-values obtained are reported in the following two tables.

Table 6A

Significant differences between the groups

	Matched (MG) / Unmatched (UMG)				
	T	DF	P	mean	
				MG	UMH
Somatic Symptoms					
pre-treatment	3.31	12	0.006**	38	57
post-treatment 1	2.50	11	0.029*	26	48
Cognitive Symptoms					
post-treatment 1	2.21	11	0.049*	36	59
Marks and Mathews Fear Questionnaire					
- Mood Scale					
post-treatment 1	3.05	11	0.011**	11	24
- Incapacity					
pre-treatment	3.04	12	0.010**	3	6
post-treatment 3	2.27	12	0.042*	2	4

\* p<0.05; \*\* p<0.01



Table 6B

Significant differences between the subjects

	Cognitive/Non-cognitive Subjects					
	T	DF	P	mean		
				CS	NCS	
Behavioural Symptoms						
Post-treatment 3	2.60	12	0.023*	17 <sup>b</sup>	48	
Marks and Mathews Fear Questionnaire						
- Total Fear						
Post-treatment 3	2.52	12	0.027*	24	53	
-Agoraphobia						
Post-treatment 3	2.86	12	0.014**	6	21	

\*  $p < 0.05$ ; \*\*  $p < 0.01$

Raw Data

Raw data, mean scores, standard deviations and number of subjects in each group are reported in appendix B and are discussed in the Discussion Section.

### Main Results

The results obtained on the analysis of variance for the four groups of subjects, i.e. cognitive subject/cognitive treatment, non-cognitive subject/cognitive treatment, cognitive subject/non-cognitive treatment and non-cognitive subject/non-cognitive treatment, are discussed in the following section. The significant interactions are analysed according to the method described by Winer (1971)

Table 7

## Summary of Analysis of Variance - Total Anxiety

Source	SS	DF	MS	F	P
Between	4318.12				
A (subject)	570.37	1	570.37	2.04	0.25
B (treat)	0.04	1	0.04	0.001	ns
AB	1520.04	1	1520.04	5.45	0.05
SvG	2227.66	8	278.45		
Within	4838.50				
C (pre/post)	3384.50	1	3384.50	52.91	0.001
AC	45.37	1	45.37	0.70	ns
BC	610.04	1	610.04	9.53	0.05
ABC	287.04	1	287.04	4.487	0.10
CxSvG	511.666	8	63.95		

---

Table 7 Cont'd

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Breakdown of AB variable:

Cell Totals		
b1	b2	
a1 132	247	b1 - F7.09; df 1,8; $p < 0.05$
a2 306	210	b2 - F0.40; df 1,8; ns

Breakdown of BC variable:

Cell Totals		
c1	c2	
b1 270	188	b1 - F8.76; df 1,8; $p < 0.05$
b2 330	127	b2 - F53.69; df 1,8; $p < 0.01$

---

Table 7 illustrates that all four groups of subjects improved in their total level of anxiety during treatment as shown by the 0.01 level of significance obtained for the C or pre vs post 3 variable. The 0.05 level of significance on the AB variable indicates that there was an interaction between subject and treatment. When this variable was broken down it was found that in cognitive treatment it was cognitive subjects who improved to a greater extent than non-cognitive subjects. In non-cognitive treatment it was again cognitive subjects who made the greater improvement. A significant interaction of 0.05 was also found for the BC variable which represents type of treatment. When this

interaction was broken down it was found that by the 6 month follow-up non-cognitive treatment was slightly more effective than cognitive treatment.

Table 8

Summary of Analysis of Variance - Cognitive Anxiety

Source	SS	DF	MS	F	P
Between	3707.83				
A (subject)	400.16	1	400.16	1.34	ns
B (treat)	10.66	1	10.66	0.03	ns
AB	912.66	1	912.66	3.06	0.25
SwG	2384.33	8	298.04		
Within	7302.00				
C (pre/post)	4266.66	1	4266.66	32.74	0.001
AC	32.66	1	32.66	0.25	ns
BC	1380.16	1	1380.16	10.59	0.05
ABC	580.16	1	580.16	4.45	0.10
CxSwG	1042.33	8	130.29		

Breakdown of BC variable:

Cell Totals

	c1	c2	
b1	297	228	b1 - F3.04; df 1,8; ns
b2	396	145	b2 - F40.29; df 1,8; p<0.01

Table 8 illustrates the results obtained when cognitive anxiety was analyzed. The only significant interaction found on this scale was for the BC variable which represents the pre. vs post 3 treatment effect. When the interaction was broken down it was found that subjects in non-cognitive treatment had improved significantly to the 0.01 level whereas for cognitive treatment the effect did not reach significance.

Table 9

## Summary of Analysis of Variance - Behavioural Anxiety

Source	SS	DF	MS	F	P
Between	12306.33				
A (subject)	204.16	1	204.16	0.29	ns
B (treat)	4.16	1	4.16	0.005	ns
AB	6534.00	1	6534.00	9.39	0.05
SvG	5564.00	8	695.50		
Within	3271.00				
C. (pre/post)	1908.16	1	1908.16	21.48	0.001
AC	266.66	1	266.66	3.00	0.25
BC	384.00	1	384.00	4.32	0.10
ABC	1.49	1	1.49	0.01	NS
CxSvG	710.66	8	88.83		

## Breakdown of AB variable:

Cell Totals		
b1	b2	
a1 136	329	a1 - F3.18; df 1,8; p<0.25
a2 299	96	a2 - F6.50; df 1,8; p<0.05



Table 9 shows the results obtained for behavioural anxiety. On this scale the only ANOVA effect reaching significance was the subject/ treatment or AB interaction. When this interaction was broken down in order to identify which subject in which type of treatment was contributing to the significant result it was found, as with total anxiety, that cognitive subjects were the a more responsive subject group. The non-cognitive treatment group was again found to be more responsive.

Table 10

## Summary of Analysis of Variance - Somatic Anxiety

Source	SS	DF	MS	F	P
Between	3168.83				
A (subject)	1734.00	1	1734.00	10.97	0.05
B (treat)	10.66	1	10.66	0.06	ns
AB	160.16	1	160.16	1.01	ns
SwG	1264.00	8	158.00		
Within	5121.00	12			
C (pre/post)	3266.66	1	3266.66	25.77	0.01
AC	13.5	1	13.5	10.29	0.05
BC	504.16	1	504.16	3.97	0.10
ABC	322.66	1	322.66	2.54	0.25
CxSwG	1014.00	8	126.75		

## Breakdown of AC variable:

Cell Totals		
c1	c2	
a1 227	96	a1 11.28; df 1,8; P<0.01
a2 338	189	a2 14.59; df 1,8; P<0.01

Table 10 summarises the results obtained when the somatic anxiety scale was analysed. This was the only scale on which a significant interaction was found for the pre vs post 3 subject variable. When this variable was broken down it was found that subjects matched in treatment improved to a slightly greater extent than subjects who were not matched in treatment.

The remaining seven outcome measures were also analysed by means of the analysis of variance. However, since there were no significant differences found between the groups these results are summarised in table 11. The summary of the analyses of variance are shown in appendix C.

Table 11 shows that all subjects improved during treatment on the Beck Depression Inventory, The Marks and Mathews Total Fear, Hood and Incapacity scales, and both Self Efficacy Scales. This can be seen on the C variable or pre vs post 3 results. No significant interactions were found on these scales, therefore, no group differences with respect to response to treatment could be identified.

Table 11

## Summary of Analyses of Variance - Remaining Outcome Measures

Scale	Variable						
	A	B	AB	C	AC	BC	ABC
B.D.I.	ns	ns	ns	0.01	0.10	0.10	ns
Mood	0.10	ns	ns	0.05	ns	ns	ns
Total Fear	ns	0.05	0.25	0.05	ns	ns	ns
Agoraphobia	ns	ns	0.25	0.25	ns	0.25	0.10
Incapacity	0.01	ns	0.25	0.01	ns	ns	ns
Confidence							
level	ns	ns	0.25	0.01	ns	ns	ns
'Can do'	0.25	ns	ns	0.01	ns	ns	ns

Comparison of Matched/Unmatched Groups' Response to Treatment

The group which showed a significant improvement over their comparison group was the matched group, and within this group cognitive subjects and subjects in non-cognitive treatment made more improvement than non-cognitive subjects and those subjects in cognitive treatment. It may, therefore, be argued that since the matched group and cognitive subjects made more progress, it would have been expected that cognitive treatment, and not non-cognitive

treatment, would have been more effective. In order to clarify this apparent contradiction the results for the four groups of matched/unmatched subjects were compared. The Beck Depression Inventory is shown below to illustrate the group effect since all scales showed the same pattern of results. The histogram shown in figure 1 shows that a) both matched sub-groups made steady progress in reducing their level of depression; b) the cognitive subjects/non-cognitive treatment sub-group, after an initial hiccough, showed a reduction in depression; c) the non-cognitive subjects/cognitive treatment sub-group made virtually no progress.

It follows from these results that whilst both types of matching are effective, i.e. cognitive subjects/cognitive treatment and non-cognitive subjects/non-cognitive treatment, one type of 'unmatching' is better than the other. That is, while cognitive subjects are able to derive some benefit from non-cognitive treatment, non-cognitive subjects are unable to derive any benefit from cognitive treatment.

Figure 1

Sub-group results on the B.D.I.

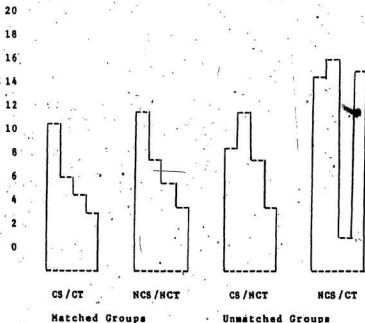


Figure 1: Subject's mean scores on the B.D.I. at pre-treatment, post-treatment 1, post-treatment 2 and post-treatment 3.

### Imagery Classification

In addition to ~~C~~lassifying subjects on the Lehrer and Woolfolk Symptom Questionnaire for the purpose of matching subjects in treatment, subjects were also categorised according to the comments made by them during the imagery sessions. During these sessions subjects imagined themselves to be in their feared situations and described their fear reaction to them. These descriptions were recorded by a therapist. These comments were categorised as either cognitive, behavioural or somatic and subjects' results were grouped accordingly. Unlike the Lehrer and Woolfolk Symptom Questionnaire which enabled an even split between cognitive (n=7) and non-cognitive (n=7) subjects, imagery resulted in a group of somatic (n=6) as opposed to a non-somatic (n=8) group of subjects. The groups were, therefore, split on the basis that an equal number of subjects was required in each category, for comparison purposes, and these were the only categories in which numbers were almost equal.

In order to compare the two methods of categorising subjects an analysis of variance was carried out, again for all 11 outcome measures on the pre-treatment vs 6 month follow-up data. For the purpose of this analysis subjects were categorised as either somatic/cognitive, somatic/non-cognitive, non-somatic/cognitive or non-somatic/non-cognitive subjects. The number of subjects in each group are shown in table 13.

The results are summarised in table 12 for the 11 outcome measures. Table 12 illustrates that very little of the effect can be attributed to the somatic/ non-somatic variable alone. However, the influence of this variable can be seen in the ABC interaction which shows a result approaching significance on the majority of scales. This result indicates that both anxiety classifications are contributing to the treatment effect. In addition, the cognitive/non-cognitive category, as shown in the BC variable, contributes more to the effect on the anxiety scales whereas the somatic/non-somatic category contributes more to the self efficacy expectation scales.



Table 12

Summary of Analyses of Variance - 11 Outcome Measures  
Somatic/Non-Somatic - Cognitive/Non-Cognitive Subjects

Scale	Variable						
	A	B	AB	C	AC	BC	ABC
Total Anxiety	0.25	ns	ns	0.01	ns	0.10	0.10
Cognitive "	0.25	ns	ns	0.05	ns	0.25	0.25
Behavioural "	ns	0.25	ns	0.05	ns	ns	0.10
Somatic "	0.05	ns	ns	0.01	ns	0.10	0.10
B.D.I.	0.25	ns	ns	0.01	ns	0.10	0.05
Total Fear	0.10	0.25	ns	0.05	ns	ns	ns
Mood	0.01	ns	ns	0.01	0.25	0.25	0.10
Agoraphobia	0.10	0.25	ns	0.05	ns	0.05	ns
Incapacity	ns	ns	ns	0.01	0.25	ns	ns
Confidence							
level	ns	0.25	ns	0.01	0.05	ns	ns
'Can do'	ns	ns	ns	0.01	0.10	ns	0.10

A = Imagery Classification (Somatic/Non-Somatic)

B = Lehrer and Woolfolk Classification (Cognitive/Non-Cognitive)

C = Pre/Post 3

Comparison of Somatic/Non-Somatic Subjects

In order to illustrate the progress made by subjects when they were categorised as either somatic or non-somatic according to their imagery comments the mean scores obtained on their total anxiety score on the Lehrer and Woolfolk Symptom Questionnaire are shown in table 13. T-Test values and significance levels are also shown.

Table 13

Total Anxiety - Comparison of Mean Scores

	Pre	Post 3	t-Value
Section A			
Somatic Subject (n=6)**	149.50	125.66	1.17 n.s.
Non-somatic (n=8)	129.25	56.00	6.42 **

Section B

SS/CT* (n=3)	58.00	54.66	0.37 n.s.
SS/NCT (n=3)	66.66	50.66	1.09 n.s.
NSS/CT (n=3)	53.00	25.33	10.96 **
NSS/NCT (n=5)	65.40	24.00	6.31 **

Section C

SS/CS (n=2)	63.00	43.00	2.47 n.s.
SS/NCS (n=4)	62.00	57.50	0.36 n.s.
NSS/CS (n=5)	65.40	24.00	4.36 **
NSS/NCS (n=3)	53.00	25.33	9.20 **

\*\* =  $p < 0.01$ ; n.s. = not significant

---

\*\* n values refer to pre and post 3 data

\* SS = Somatic Subject; CT = Cognitive Treatment  
NSS = Non-Somatic " ; NCT = Non-Cognitive "  
CS = Cognitive " ; NCS = Non-Cognitive Subject

---

Table 13, illustrates a subsidiary analysis carried out only to show the difference between somatic and non-somatic subjects. The main point is shown in Section A which illustrates that non-somatic subjects improved significantly during treatment whereas somatic subjects did not.

Sections B and C are provided only to illustrate the division of somatic/ non-somatic subjects into cognitive/non-cognitive anxiety response and cognitive/non-cognitive treatment. Since the contribution of anxiety response type and treatment type are not partialled out, the results should be interpreted only in so far as they reflect the somatic/non-somatic comparison.

### Pulse Rate/Imagery/Anxiety Response

In the following section pulse rate/imagery and anxiety response are discussed. The pulse rate/imagery data was obtained during the three monitoring sessions, held at pre-treatment, post-treatment 1 and post-treatment 2, in which subjects imagined themselves to be in their feared situations. The anxiety response data was obtained from the Lehrer and Woolfolk Symptom Questionnaire completed at the same three points in treatment.

The data obtained from these two sources are compared graphically in order to examine whether concordance was present. That is, did the scores over the three sessions rise/decrease simultaneously and therefore show concordance? Alternatively did one set of scores rise while another fell and therefore indicate discordance?

A graph is shown for each grouping of subjects and the subjects somatic anxiety and somatic comments during imagery are illustrated in the somatic category. Similarly with behavioural and cognitive categories. Pulse rate is shown independently.

To facilitate this discussion the four groups of subjects discussed in the first section, i.e. cognitive subjects/cognitive treatment, non-cognitive subjects/cognitive treatment, cognitive subjects/non-cognitive treatment and non-cognitive subjects/non-cognitive treatment have been regrouped. This

was necessary because the final pulse rate and imagery monitoring session was held at post 2, i.e. after 7 weeks of self-paced treatment, when missing data reduced the number in one of the four groups to one subject. The groups discussed in this section are, therefore, matched/unmatched, cognitive/non-cognitive subjects and cognitive/non-cognitive treatment. In addition somatic/non-somatic subjects are discussed.

For each grouping of subjects a graph shows the three response measures for comparison purposes and these graphs are summarised in a table preceding them.

Matched/Unmatched Group

Table 14 summarises the data in order to illustrate the categories in which concordance and discordance occurred within the three measures. These results are discussed later in the Discussion Section.

Table 14

Summary of categories in which concordance and discordance occurred

	Matched	Unmatched
	-----	-----
Pulse Rate/Imagery		
-----		
Concordance	Somatic	Cognitive
Discordance	Beh./Cog.	Som./Beh.
Imagery/Anxiety Response		
-----		
Concordance	Beh./Cog.	Somatic
Discordance	Somatic	Beh./Cog.
	-----	-----

The pulse rate/anxiety response comparisons are not shown in the tables primarily because while pulse rate was generally increasing, anxiety response was generally decreasing. The results summarised in table 14 are illustrated in figures 2 and 3.

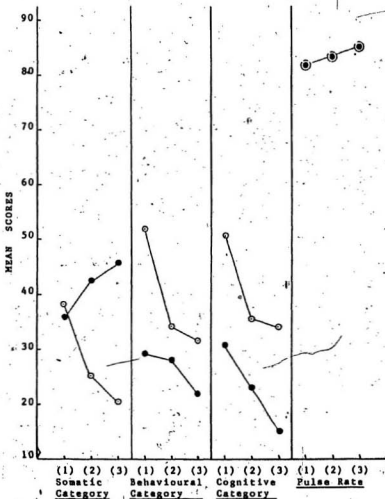
The graphs and table illustrate that while matched subjects are concordant in the somatic category for their pulse rate and imagery the unmatched group are concordant in the cognitive category. For the imagery and anxiety response comparison, however, the matched group are concordant in the behavioural/cognitive categories while the unmatched group are concordant in the somatic category.



**PULSE RATE/IMAGERY/ANXIETY-RESPONSE-CHARACTERISTICS**

●—●    ●—●    ○—○

**MATCHED...GROUP**

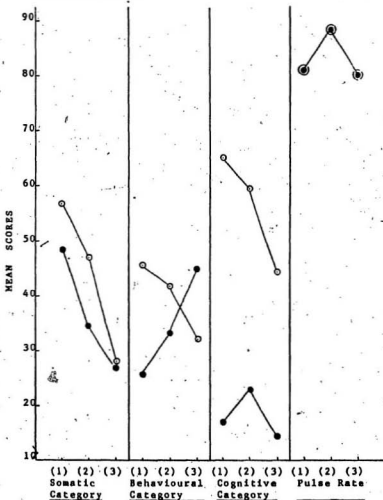


**Figure 2:** In each category of response, subjects' mean pulse rate during imagery; mean number of comments during imagery; and, mean self-reported anxiety response scores. (1) = pre-treatment; (2) = post-treatment 1; (3) = post-treatment 2.

## PULSE RATE/IMAGERY/ANXIETY RESPONSE CHARACTERISTICS

● — ● ○ — ○

UNMATCHED GROUP



**Figure 3 :** In each category of response, subjects' mean pulse rate during imagery; mean number of comments during imagery; and, mean self-reported anxiety response scores. (1) = Pre-treatment; (2) = post-treatment 1; (3) = post-treatment 2.

Cognitive/Non-Cognitive Subjects

Table 15

Summary of categories in which concordance and discordance occurred

	Cognitive	Non-Cognitive
Pulse Rate/Imagery		
Concordance	Som./Cog.	Behavioural
Discordance	Behavioural	Som./Cog.
Imagery/Anxiety Response		
Pre/Post 1		
Concordance	Behavioural	Som./Cog.
Discordance	Som./Cog.	Behavioural
Post 1/Post 2		
Concordance	Som./Cog.	Behavioural
Discordance	Behavioural	Som./Cog.

Pulse rate/imagery followed the same pattern over the three monitoring sessions and this is shown in table 15. However, the imagery/anxiety response results fluctuated over the three sessions. It was, therefore, necessary to breakdown the imagery/anxiety response data into the pre vs post 1 and post 1 vs post 2 components. When this was done

table 15 shows that the post 1 vs post 2 components compare with the pulse rate/imagery over the three sessions.

Table 15 also shows that whilst cognitive subjects are concordant in the somatic/cognitive category, non-cognitive subjects are concordant in the behavioural category. These results are illustrated in figures 4 and 5.

PULSE RATE/IMAGERY/ANXIETY RESPONSE CHARACTERISTICS

● — ●      ● — ●      ○ — ○

COGNITIVE SUBJECTS

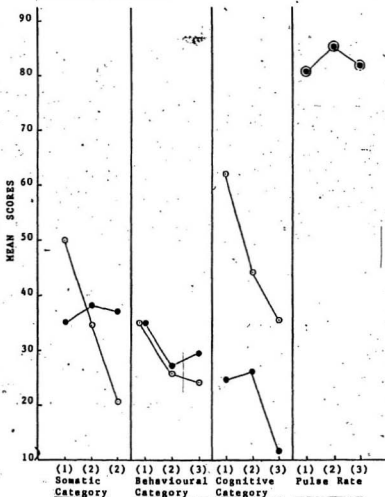
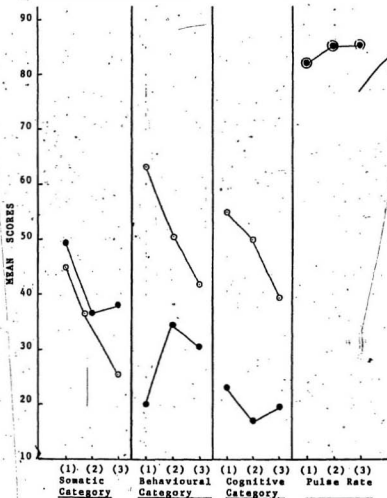


Figure 4 : In each category of response, subjects' mean pulse rate during imagery; mean number of comments during imagery; and, mean self-reported anxiety response scores. (1) = pre-treatment; (2) = post-treatment 1; (3) = post-treatment 2.

PULSE RATE/IMAGERY/ANXIETY\* RESPONSE CHARACTERISTICS

● — ●      ○ — ○

NON-COGNITIVE SUBJECTS



**Figure 5 :** In each category of response, subjects' mean pulse rate during imagery; mean number of comments during imagery; and, mean self-reported anxiety response scores. (1) = pre-treatment; (2) = post-treatment 1; (3) = post-treatment 2.

Cognitive/Non-Cognitive Treatment

Table 16

Summary of categories in which concordance and  
discordance occurred

	Cognitive	Non-Cognitive
<u>Pulse Rate/Imagery</u>		
Pre/Post 1		
Concordance	Cognitive	Som./Beh.
Discordance	Som./Beh.	Cognitive
Post 1/Post 2		
Concordance	Som./Beh.	Somatic
Discordance	Cognitive	Beh./Cog.
<u>Imagery/Anxiety Response</u>		
Pre/Post 1		
Concordance	Som./Beh.	Cognitive
Discordance	Cognitive	Som./Beh.
Post 1/Post 2		
Concordance	Cognitive	Somatic
Discordance	Som./Beh.	Beh./Cog.

Due to the fluctuations within the three measures shown in table 16 it was necessary to break the results down into pre/post 1 and post 1/ post 2 components. When this was done it became apparent that the two treatment groups are never concordant in the same category at the same time. These results are illustrated in figures 6 and 7.



PULSE RATE/IMAGERY/ANXIETY RESPONSE CHARACTERISTICS

COGNITIVE TREATMENT

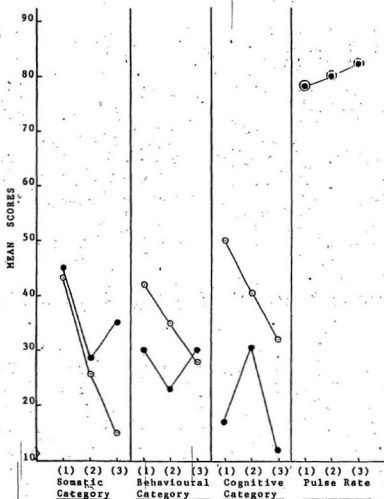


Figure 6: In each category of response, subjects' mean pulse rate during imagery; mean number of comments during imagery; and, mean self-reported anxiety response scores. (1) = pre-treatment; (2) = post-treatment 1; (3) = post-treatment 2.

PULSE RATE/IMAGERY/ANXIETY RESPONSES CHARACTERISTICS

● — ●    ● — ●    ○ — ○

NON-COGNITIVE TREATMENT

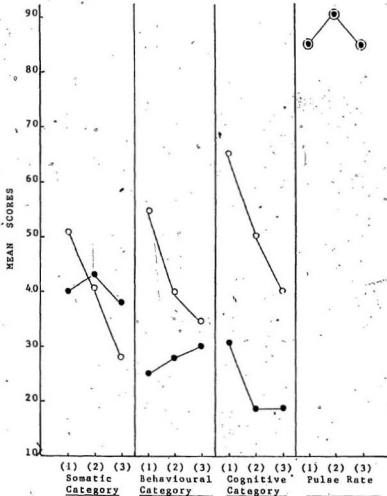


Figure 7: In each category of response, subjects' mean pulse rate during imagery; mean number of comments during imagery; and, mean self-reported anxiety response scores. (1) = pre-treatment; (2) = post-treatment 1; (3) = post-treatment 2.

Somatic/Non-Somatic Subjects

Table 17 summarises the data in order to illustrate the categories in which concordance and discordance occurred within the three measures for somatic and non-somatic subjects.

Table 17

Summary of categories in which concordance and discordance occurred

	Somatic	Non-Somatic
Pulse Rate/Imagery		
Concordance	Cognitive	Somatic
Discordance	Som./Beh.	Beh./Cog.
Imagery/Anxiety Response		
Concordance	Somatic	Beh./Cog.
Discordance	Beh./Cog.	Somatic

This table shows the difference between somatic/non-somatic subjects on the three measures. On pulse rate/imagery somatic subjects are concordant in the cognitive category whereas non-somatic subjects are concordant in the somatic category. The reverse is seen on

imagery/anxiety response with somatic subjects showing concordance in the somatic category and non-somatic subjects showing concordance in the behavioural and cognitive categories. Figures 8 and 9 illustrate these results.

The data from pulse rate recordings, imagery recordings and self-reported anxiety response characteristics were compared in order to identify whether or not they varied within the same category of response. That is, did they vary simultaneously in the somatic, behavioural or somatic category.

The following table summarises the categories in which concordance was found. The groups have been separated in the table into (1) matched, cognitive subjects, non-cognitive treatment and non-somatic subjects, since these groups improved to a greater extent than (2) the unmatched group, non-cognitive subjects, cognitive treatment and somatic subjects.

## PULSE RATE/IMAGERY/ANXIETY RESPONSE CHARACTERISTICS

## SOMATIC SUBJECTS

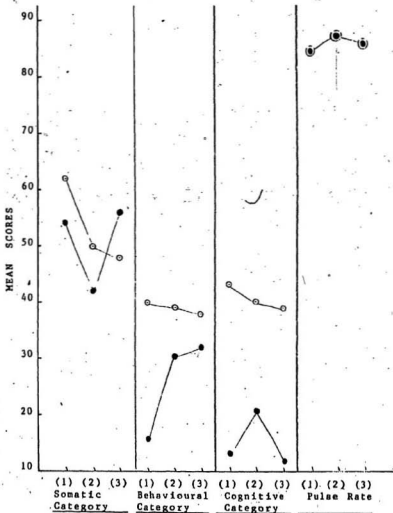


Figure 8: In each category of response, subjects' mean pulse rate during imagery; mean number of comments during imagery; mean self-reported anxiety response scores. (1) pre-treatment; (2) post-treatment 1; (3) post-treatment 2.

## PULSE RATE/IMAGERY/ANXIETY RESPONSE CHARACTERISTICS

## NON-SOMATIC SUBJECTS

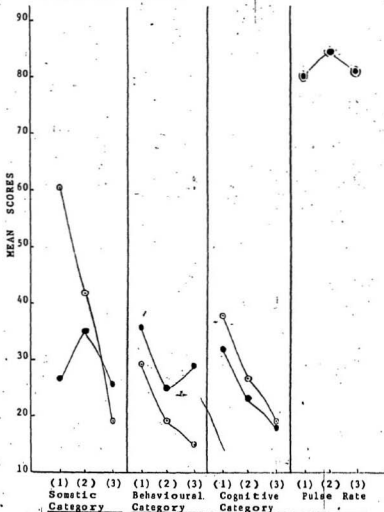


Figure 9: In each category of response, subjects' mean pulse rate during imagery; mean number of comments during imagery; mean self-reported anxiety response scores. (1) pre-treatment; (2) post-treatment 1; (3) post-treatment 2.

Table 18

Categories in which concordance were found

	Pulse Rate/ Imagery	Imagery/Anxiety Response
Matched group	Somatic	Beh./Cog.
Cognitive subjects	Som./Cog.	Behavioural
Non-cognitive treatment	Som./Beh.	Cognitive
Non-somatic subjects	Somatic	Beh./Cog.
Unmatched group	Cognitive	Somatic
Non-cognitive subjects	Behavioural	Som./Cog.
Cognitive treatment	Cognitive	Som./Beh.
Somatic subjects	Cognitive	Somatic

When table 18 is examined, a pattern emerges from the array of data obtained for the three measures. This pattern suggests that the best predictors of response to treatment are, as in the case of the matched group, for example, that pulse rate and imagery be concordant in the somatic category and imagery/anxiety response be concordant in the behavioural and cognitive category.

### DISCUSSION

The hypothesis tested was that matching subjects' predominant anxiety response characteristic with treatment would be more effective than applying one treatment to a heterogeneous group of subjects. The results of the study partially support the hypothesis. While at the six month follow-up both matched groups had shown an improvement, one of the unmatched groups also improved during treatment. Overall, the results showed that cognitive subjects were able to benefit from treatment regardless of whether it was cognitive or non-cognitive treatment. Non-cognitive subjects on the other hand gained considerable benefit from non-cognitive treatment but gained virtually no benefit from cognitive treatment.

### Imagery Classification

The results obtained when the analysis of variance was carried out on the four groups of subjects assigned to treatment by means of the Lehrer and Woolfolk Symptom Questionnaire suggested that a variable not included in the equation was contributing to the treatment effect. As previously mentioned the comments made by subjects when they were imagining themselves to be in their feared situations were also analysed. This analysis showed that subjects could be categorised as either somatic or non-somatic, unlike their categorisation on the Lehrer and Woolfolk Symptom Questionnaire which resulted in a



cognitive/non-cognitive grouping of subjects. When an analysis of variance comparing the relative contribution of both types of categorisation was carried out the results indicated, by means of, an interaction which approached significance, that both variables were contributing to the treatment effect.

This finding may be explained by considering that the subjects were being treated for agoraphobia and this disorder includes two types of anxiety in the associated symptoms. One type is normally referred to as generalised anxiety and the other is normally referred to as phobic anxiety.

By assuming that the Lehrer and Woolfolk Symptom Questionnaire was measuring subjects' response to anxiety, treatment was conceptualised as cognitive treatment including in vivo exposure as distinct from non-cognitive treatment including in vivo exposure. This is illustrated in table 19.

Table 19

Treatment

Anxiety	Cognitive Subject	Non-Cognitive Subject
Response	Cognitive Treatment	Non-Cognitive Treatment
	Including	Including
	In vivo exposure	In vivo exposure

However, if it is considered that subjects' comments during the pulse rate/ imagery sessions were made in response to their imagining themselves to be in their feared situation it may be assumed that these comments were reflecting 'phobic anxiety'. The symptom questionnaire, on the other hand, has a much broader focus covering various aspects of anxiety independently of subjects feared situations. It may, therefore, be assumed that the symptom questionnaire was measuring subject's level of 'generalised anxiety'. This being the case then treatment should have been conceptualised in the form illustrated in table 20.

Table 20

Treatment

Generalised Anxiety	Cognitive Subject Cognitive Treatment	Non-Cognitive Subject Non-Cognitive Treatment
Phobic Anxiety	Somatic/Non-somatic Subjects In vivo exposure Treatment	Somatic/Non-somatic Subjects In vivo exposure Treatment

In other words subjects were matched on the basis of their 'generalised anxiety' but they were not simultaneously matched on their 'phobic anxiety'. Since both groups received in vivo exposure to their feared situations, matching subjects in treatment on the basis of the Lehrer and Woolfolk Symptom Questionnaire was an overlay rather than a distinct treatment package.

Support for this argument may be drawn from the results obtained on the analysis of variance, particularly if subjects' self efficacy ratings are taken into account. Self efficacy was used as a measure of subjects perceived ability to expose themselves to their feared situations, and, therefore, may be considered to reflect their 'phobic anxiety'. When the analysis of variance was carried out to compare the relative contribution of categorising subjects

on the symptom questionnaire as opposed to their imagery comments it was found that most of the variance was accounted for by the classification according to their imagery comments.

If subjects' anxiety is considered in terms of the two components of 'generalised' and 'phobic' anxiety a clearer picture of the advantage of matching subjects in treatment may be obtained. For example, if the subject is identified before treatment begins as a somatic/non-cognitive subject this would indicate that they would be more likely to benefit from non-cognitive treatment than cognitive treatment.

#### Matched/Unmatched Subjects

One of the major factors both influencing the comparison between these two groups and reflecting on the other comparisons was the dropout of subjects. This is illustrated in table 21.

Table 21 - Attrition

	Pre	Post 2	Dropout
Matched Group	n=7	n=7	NIL
Unmatched Group	n=7	n=4	-3
Cognitive Subjects	n=7	n=6	-1
Non-Cognitive Subjects	n=7	n=5	-2
Cognitive Treatment	n=6	n=4	-2
Non-Cognitive Treatment	n=8	n=7	-1

Mathews et al. (1981) have stated that it would clearly be of some practical and theoretical value to predict who would benefit most from a particular method of treatment. This study indicates that it is neither subject type nor treatment type which predicts successful completion of therapy but the combination of these. That is, matching subjects in treatment.

As previously mentioned, Ost et al. (1981, 1982) has recognised the importance of individual response patterns and has completed two studies. In his 1981 study forty psychiatric outpatients with social phobia were assessed with a social interaction test. Heart rate was continuously monitored during the test. On the basis of their reaction in the test situation, the patients were divided into two

groups showing different response patterns: behavioural and physiological reactors. The results obtained by Ost are similar to those obtained in the present study in that both treatments yielded significant improvements on most measures. In Ost's study the between-group comparisons showed that for the behavioural reactors, social skills training was significantly better than applied relaxation, and for the physiological reactors, applied relaxation was significantly better than social skills training. The present study differed from Ost's study in that cognitive and non-cognitive subjects were identified on a self-report measure. Treatment differed in that half the subjects received cognitive and half received non-cognitive treatment but all received the behaviour based treatment of in vivo exposure. The results of the present study, however, were similar to those of Ost in that greater effects are achieved when the method used fits the patient's response pattern.

#### Cognitive/Non-Cognitive Subjects

Since there appear to have been no studies carried out on the comparative response to treatment of cognitive subjects and non-cognitive subjects it remains to be explained why cognitive subjects improved to a greater extent than non-cognitive subjects.

Cognitive subjects were identified on the symptom questionnaire by their high response to questions concerning worry. In a preliminary exploration of worry Borkovec et al. (1983) identified two factors from various

questionnaire studies of test anxiety which he called Worry and Emotionality. The worry factor appeared to represent the cognitive aspect of anxiety, an inward attention-focusing, and a concern over one's performance, whereas the emotionality factor refers to awareness of feeling states and physiological activity.

Borkovec's current working definition of worry is as follows:

'Worry is a chain of thoughts and images negatively affect-laden and relatively uncontrollable. The worry process represents an attempt to engage in mental problem-solving on an issue whose outcome is uncertain but contains the possibility of one or more negative outcomes. Consequently, worry relates closely to fear process.' (Borkovec et al. 1983)

If this definition is looked at in terms of the agoraphobic subject prior to treatment they were engaging in mental problem-solving on an issue whose outcome was uncertain. Since it was shown, when their level of understanding of agoraphobia was tested, that they did not fully understand the nature of the problem, their problem-solving would presumably have been ineffective. However, once the nature of the problem had been explained to them they would have been able to engage in mental problem-solving on an issue whose outcome was known.

While this may explain why cognitive subjects did so well in treatment it does not explain why non-cognitive subjects did so poorly in treatment. One finding which does have a bearing on the results was that when baseline measures were compared non-cognitive subjects were more debilitated than cognitive subjects. Although the difference between the two groups did not reach significance, non-cognitive subjects were more anxious, depressed and less confident in their ability to expose themselves to a fear provoking situation than the cognitive subjects.

There were only two measures on which the non-cognitive subjects improved to a greater extent than the cognitive subjects, and these were the number of goals completed and the follow-up 'can do' rating. Therefore, the poorer performance of the non-cognitive subjects cannot be attributed to lack of effort on their part.

These findings would indicate that non-cognitive subjects, while responding to treatment, would require to be in therapist-assisted treatment for a longer period of time than cognitive subjects.

#### Cognitive/Non-Cognitive Treatment

The results of the study showed that although non-cognitive treatment and cognitive treatment were equally effective initially, non-cognitive treatment was significantly more effective than cognitive treatment in the



long term.

The results of the study do not support the view held by, for example. Marks (1981) or Mathews et al (1981) that in vivo exposure is the critical factor in the treatment of agoraphobia. The critical subject factor was the subjects' level of anxiety and the critical treatment factor was relaxation training. Subjects' receiving non-cognitive treatment, i.e. relaxation training and in vivo exposure improved to a significantly greater extent than subjects receiving cognitive treatment and in vivo exposure. This may be explained by considering that if a subject's physiological response to a feared situation is too high then avoidance occurs. Relaxation training teaches these subjects how to control their physiological reaction thus bringing their anxiety down to an optimum level and enabling them to expose themselves to their feared situation.

After reviewing the literature Rohs et al. (1978) concluded that behaviour therapy, especially flooding and to a lesser extent systematic desensitization, appears to be superior to psychotherapy. Although systematic desensitization was not used in this study, relaxation training was and this is a component of systematic desensitization. According to Marks (1969), who reviewed the treatment of phobic disorders, more intense psychotherapy should be reserved for patients in whom a) troublesome interpersonal problems exist in addition to phobic symptoms, b) the secondary gain of illness are

thwarting progress, or c) the dynamic equilibrium is upset by the loss of symptoms.

Another point relating to treatment which bears on the fact that cognitive subjects and non-cognitive treatment were the better groups is mentioned by Borkovec (1983) concerning worry. He states that the conclusion now shared by several workers in insomnia is that the disorder is often the result of an inability to turn off intrusive, affectively-laden thoughts and images at bedtime and that relaxation techniques facilitate the termination of such sleep-retarding activity. This finding relates to the previously mentioned point that in the unmatched group, cognitive subjects were able to derive some benefit from non-cognitive treatment. However, cognitive subjects in cognitive treatment made a more steady, progressive improvement than cognitive subjects in non-cognitive treatment.

#### Pulse Rate

When the pulse rate for the total sample of subjects was examined it was noted that whilst pulse rate increased after 5 weeks of treatment, it subsequently decreased after 7 weeks of self-paced treatment. This pattern was also noted for those groups which did well in treatment, but for those groups who did less well the decrease in pulse rate did not occur at 7 week follow-up.

The implication is that whilst self-report measures, after 5 weeks of treatment, indicated a reduction in anxiety levels, pulse rate monitoring indicated an increase in levels of anxiety. Intuitively this makes sense since self-report measures confirmed subjects comments that they felt much better about themselves after having dealt with various problem situations. It also seems appropriate that pulse rate would increase since subjects were exposing themselves to fear-provoking situations that they had previously avoided.

By the time of the 7 week follow-up the increase/decrease in pulse rate differentiates those subjects who were greatly improved from those who were only slightly improved. It seems that whilst subjects are still in the process of working through their fears their physiological response remains elevated. Once they feel more confident in their ability to overcome their fears the physiological response decreases.

This finding clarifies the problem reported by Barlow (1980) who found that an agoraphobic who improved in all respects except heart rate reduction in feared surroundings relapsed soon after treatment.

Concordance/Discordance: The difference/similarities found between self-report measures and physiological response patterns in this study can be related to the findings reported by Rachman (1976, 1978).

At pre-treatment, concordance existed between self-reported arousal and physiological arousal since both were elevated. After 5 weeks of treatment, the relationship had altered with a decrease in self-reported levels of anxiety, but an increase in physiological arousal. Thus, at that time the two systems were discordant.

The findings after 7 weeks of self-paced treatment depended on the subject's level, or amount of improvement. Those subjects who indicated the greatest improvement on self-report measures showed a decrease in pulse rate, and, therefore, returned to concordance between the two. The subjects with the lowest level of self-reported improvement, however, remained discordant since pulse rate did not decrease.

This finding supports the findings of Lang et al. (1970). In their study, although they failed to find evidence of a relationship between physiological changes and subjective/behavioural changes, after desensitization, they did find that subjects showing the greatest changes on subjective and behavioural measures also showed the greatest reduction in heart rate on phobic images.

Categories in which concordance was found

These findings begin to make sense if 'fear of fear' (Goldstein and Chambless 1978), or fear of panic attack, is taken into account.

It seems that whilst matched subjects, for example, suffer the physiological symptoms associated with panic attack, since their pulse rate/imagery is centred in the somatic category, they are able to control these bodily feelings when in a feared situation since their imagery/anxiety response is centred in the cognitive category.

However, in the case of the unmatched subjects, for example, their pulse rate/ imagery is centred in the cognitive category, and their imagery/anxiety response is centred in the somatic category. This means that when they find themselves in a feared situation their attention is focussed on their physiological response. This type of reaction, which is characteristic of agoraphobia, centres on the subjects' expectation that they may faint if they become very anxious and may come round to find themselves surrounded by unsympathetic onlookers.

These findings can be related to the attribution theory proposed by Schachter (1964). According to this view physiological arousal is seen as a necessary, although not sufficient, condition for the emergence of an emotional reaction. The cognitive labelling and attribution of the perceived arousal in a specific cognitive context will ultimately determine the content of the reaction. In this view, when fear is felt it is suggested that arousal and the labelling of the source of arousal as threat will be intimately linked. According to Hodgson and Rachman (1974)

a number of psychologists have suggested that this re-labelling process is much less likely to occur under conditions of extreme emotion than under conditions of weak arousal.

### SUMMARY

The matched group improved to a significantly greater extent than the unmatched group, however, this result was not entirely attributable to matching per se. This became obvious when it was found that cognitive subjects and non-cognitive treatment were contributing to improvement. In addition, it was found that three of the four groups showed improvement in treatment. These were the two matched groups plus one of the unmatched groups. The second unmatched group, i.e. non-cognitive subjects/cognitive treatment, was the group showing least progress. This group, therefore, not only depressed the results obtained for the unmatched group but also for the non-cognitive subject and cognitive treatment groups. Since one of the unmatched groups showed a similar improvement to both matched groups it cannot be unequivocally said that matching is more effective than unmatching subjects in treatment.

Another factor which effected the subject type result was that non-cognitive subjects were initially more anxious than cognitive subjects.

In terms of type of treatment, in the short term both types of treatment were effective. However, in the long term, i.e. at 6-month follow-up, non-cognitive treatment was more effective than cognitive treatment.

A contributing variable was that subject type as identified by the Lehrer and Woolfolk Symptom Questionnaire was not the same as subject type as identified by subjects' comments made while they imagined themselves to be in their feared situations. While subjects could be classified as either cognitive or non-cognitive on the symptom questionnaire they fell into a somatic/non-somatic classification on their imagery. It was hypothesised that the Lehrer and Woolfolk Symptom Questionnaire was measuring generalised anxiety whereas imagery was measuring phobic anxiety. This being the case then when subjects were matched in treatment they were matched on generalised anxiety only. Support for this view was drawn from the finding that on the self efficacy scales which measured in vivo exposure to a feared situation the variable which accounted for the improvement in treatment was whether the subjects were somatic or non-somatic, not whether they were cognitive or non-cognitive. Another finding concerning somatic/non-somatic subjects was that somatic subjects initially were more anxious than non-somatic subjects and while non-somatic subjects made considerable improvement in treatment, particularly non-cognitive treatment, somatic subjects made very little progress.

These results can be explained by considering the comparison of pulse rate/imagery/anxiety response. Those subjects who made most progress in treatment were the matched group, cognitive subjects, non-cognitive treatment



and non-somatic subjects. For each of these sets of subjects their pulse rate/ imagery were concordant in the somatic category whereas their imagery/anxiety response were concordant mainly in the cognitive category. Thus while their physiological response was somatic, control was exerted over these feelings by their imagery/anxiety response which was cognitive. The four remaining sets of subjects, i.e. unmatched, non-cognitive subjects, cognitive treatment and somatic subjects, whose imagery/anxiety response was in the somatic category were so focused on physiological responses that they had no control over their physical reaction to their feared situation, thus 'fear of fear'.

Findings such as these suggest that as an initial step in the treatment of agoraphobia subjects should be taught how to bring their physiological response down to a level at which cognitive control may be exerted. It is well known that when anxiety is too high cognitive control breaks down. The aim therefore should be to reduce physiological arousal to a manageable level, possibly by means of relaxation training. Once this is achieved subjects would be more amenable to a cognitive intervention. This strategy would apply particularly to non-cognitive and somatic subjects.

# REFERENCES

Agras, S., Sylvester, D., and Oliveau, D. (1969). The epidemiology of common fears and phobia. Comprehensive Psychiatry, 10, 2.

Agras, W.S., (1967). Transfer during systematic desensitization therapy. Behaviour Research and Therapy, 5, 193-199.

Arrindel, W.A. (1980). Dimensional structure and psychopathology correlates of the fear survey schedule (FSS-III) in a phobic population: a factorial definition of agoraphobia. Behaviour Research and Therapy, 18, 229-242.

Appelby, I. L. Klein, D.F., Sachar, E.J., and Levit, M. (1981). Biochemical indices of lactate-induced panic; A preliminary report. In D.F. Klein and J. Rabkin (Eds.) Anxiety: New research and changing concepts. Raven Press : New York.

American Psychiatric Association (1980). Diagnostic and Statistical Manual of Mental Disorders, 3rd edn., The American Psychiatric Association : Washington, D.C.

Bandura, A. (1969). Principles of Behaviour Modification. Holt, Rinehart and Winston : New York.

Bandura, A. (1977). Self efficacy: Toward a unifying theory of behaviour change. Psychological Review, 84, 191-215

Barlow, D. H., Leitenberg, H., Agras, W.S., and Wincke, J.P. (1969). The transfer gap in S.D. : An analogue study. Behaviour Research and Therapy, 7, 191-196.

Barlow, D. H., Mavissakalian, M. R., and Schofield, L. D. (1980). Patterns of desynchrony in agoraphobia: A preliminary report. Behaviour Research and Therapy, 18, 441-448.

7 Barlow, D. H. and Wolfe, B. E. (1981). Behavioural approaches to anxiety disorders: A report on the NIMH-SUNY, Albany, research conference. Journal of Consulting and Clinical Psychology, 49, 448-454.

Beech, H. R., Burns, L. E., Sheffield, B. E. (1983) A Behavioural Approach to the Management of Stress. y Wiley : Ontario.

Borkovec, T. D., Robinson, E., Pruzinsky, T., and DuPree, J. A. (1983). Preliminary explorations of worry; some characteristics and processes. Behaviour Research and Therapy, 21, 1-9

Bowen, R. C., and Kohout, J. (1979). The relationship between agoraphobia and primary affective disorders. Canadian Journal of Psychiatry, 24, 317-322.

Buglas, D., Clarke, J., Henderson, A. S., Kreitman, N., and Presley, A. S. (1977). A study of agoraphobic housewives. Psychological Medicine, 7, 73-86.

Burns, L. E. and Thorpe, G. L. (1977a). Fears and clinical phobias; epidemiological aspects and the National Survey of Agoraphobics. The Journal of International Medical Research, 5 (Supplement 1), 132-139.

Burns, L. E. and Thorpe, G. L. (1977b). The epidemiology of fears and phobias (with particular reference to the National Survey of Agoraphobics). The Journal of International Medical Research, 5 (Supplement 5), 1-7.

Burns, L. E. (1982a). Fears and phobias - epidemiological and phenomenological aspects. Psychiatry in Practice, 1, 8, 25-28.

Chambless, D. L. (1978). The role of anxiety in flooding with agoraphobic clients. Unpublished doctoral dissertation, Temple University.

Chambless, D. L., Foa, E. G., Groves, G. A., and Goldstein, A. J. (1979). Flooding with brevitall in the treatment of agoraphobia; Countereffective? Behaviour Research and Therapy, 17, 243-251.

Derogatis, L.R. (1977). SCL-90R Manual-1. Baltimore: John Hopkins University School of Medicine.

deSilva, P., and Rachman, S. (1984). Does escape behaviour strengthen agoraphobic avoidance? A preliminary study. Behaviour Research and Therapy, 22, 1, 87-91.

Emmelkamp, P. M. G. (1975). Effects of expectancy on systematic desensitization and flooding. European Journal of Behavioural Analysis and Modification, 1, 1-11.

Emmelkamp, P. M. G., Kuipers, A., and Eggersat, J. (1978). Cognitive modification versus prolonged exposure in vivo: A comparison with agoraphobics. Behaviour Research and Therapy, 16, 33-41.

Emmelkamp, P. M. G. (1979). The behavioural study of clinical phobias. In M. Hersen, R. M. Eisler, and P. M. Miller (Eds). Progress in Behaviour Modification. Vol. 8. New York : Academic Press.

Emmelkamp, P. M. G., Kuipers, A. C. M. (1979). Agoraphobia: A follow-up study four years after treatment. British Journal of Psychiatry, 134, 352-355.

Emmelkamp, P. M. G. and Mersch, P. (1982). Cognitions and exposure in vivo in the treatment of agoraphobia: Short term and delayed effects. Cognitive Therapy and Research, 6, 77-88.

Emmelkamp, P. M. G. (1982). Phobic and Obsessive-Compulsive Disorders. Plenum Press : New York.

Eysenck, H.J. and Eysenck, S.B. (1968). Manual for the Eysenck Personality Inventory. San Diego. Educational and Industrial Testing Service.

Eysenck, H. J. (1982). Neo-behaviouristic (S-R) theory. In G. T. Wilson and C. Franks (Eds.), Contemporary Behaviour Therapy. Guilford Press : New York.

Fishman, S. (1980). Agoraphobia: Multiform behavioural treatment. BMA Publications : New York.

Foa, E. B., and Chambless, D. L. (1978). Habituation of subjective anxiety during flooding in imagery. Behaviour Research and Therapy, 16, 7 391-399.

Foa, E. B., Jameson, J. S., Turner, R. M., and Payne, L. L. (1980). Massed vs spaced exposure sessions in the treatment of agoraphobia. Behaviour Research and Therapy, 18, 333-338.

Friedman, D. E. (1966). A new technique for the systematic desensitization of phobic symptoms. Behaviour Research and Therapy, 4, 139-140.

Gelder, M. G., Bancroft, J. H. J., Gath, D. H., Johnston, D. W., Mathews, A. M. and Shaw, P. M. (1973). Specific and non-specific factors in behaviour therapy. British Journal of Psychiatry, 123, 445-462.

Gillan, P. and Rachman, S. (1974). An experimental investigation of desensitization in phobic patients. British Journal of Psychiatry, 124, 392-401.

Goldstein, A. J. (1970). Case conference: Some aspects of agoraphobia. Journal of Behaviour Therapy and Experimental Psychiatry, 1, 305-313.

Goldstein, A. J. and Chambless, D. L. (1978). A reanalysis of agoraphobia. Behaviour Therapy, 9, 47-59.

Halfam, R. S. (1978). Agoraphobia: A critical review of the concept. British Journal of Psychiatry, 133, 314-319.

Hodgson, R. and Rachman, S. II. Desynchrony in measures of fear. Behaviour Research and Therapy, 12, 319-326.

Hugdahl, K. (1981). The three-systems-model of fear and emotion - a critical examination. Behaviour Research and Therapy, 19, 75-85.

Kaplan, H. I. and Sadock, B. J. (1981). Modern Synopsis of Psychiatry/III (3rd ed.) Williams and Wilkins : Baltimore/London.

Kelly, D., Mitchell-Hegg, N. and Sherman, D. (1971). Anxiety in the effects of sodium lactate assessed clinically and physiologically. British Journal of Psychiatry, 119, 468-470.

Kelly, D. (1980). Anxiety and emotions: Physiological basis and treatment. Charles C. Thomas : Springfield, IL.

Krug, S.E., Scheier, I.H., and Cattell, R.B. (1976) Handbook for the IPAT Anxiety Scale/, Champaign, Ill. Institute of Personality and Ability Testing.

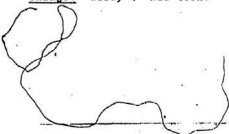
Lader, M. H. (1978). Physiological research in anxiety. In H. M. van Praag (ed.) Research in neurosis. SP Medical and Scientific Books : New York.

Lang, P. J. (1968) Fear reduction and fear behaviour: Problems in treating a construct. In J. M. Schlien (ed.) Research in Psychotherapy (Vol III). American Psychological Association : Washington, D. C.

Lang, P. J. (1969). The mechanics of desensitization and the laboratory study of human fear. In C. M. Franks (Ed.) Behaviour Therapy: Appraisal and Status. McGraw-Hill : New York.

Lang, P. J., Melamed, B. G. and Hart, J. (1970). A psychophysiological analysis of fear modification using an automated desensitization procedure. Journal of Abnormal Psychology, 72, 220-234.

Lang, P. J. (1971). The application of psychophysiological methods to the study of psychotherapy and behaviour modification. In A. E. Bergin and S. L. Garfield (eds.), Handbook of Psychotherapy and Behaviour Change. Wiley : New York.





Lang, P. J. (1978). Anxiety: Toward a psychophysiological definition. In H. S. Akiskal and W. R. Webb (Eds.) Psychiatric Diagnosis: Explorations of Biological Predictors. Spectrum Publications : New York.

Lehrer, P. M., and Woolfolk, R. L. (1982). Self-report assessment of anxiety: somatic, cognitive and behavioural modalities. Behavioural Assessment, 4, 167-177

Liddell, A., Hughes, M. and Plotz, T. (1983). The development of a self-controlled exposure programme for clients presenting with phobic and anxiety symptoms. Unpublished manuscript, Department of Psychology, Memorial University of Newfoundland.

Liddell, A., Dawe, G., Walsh-Doran, M., Galutira, B., Hearn, S., and Mackay, W. (1984). Compliance and self efficacy in the treatment of agoraphobic clients. Canadian Psychological Association Convention Abstract Number 283. Paper presented at the annual convention of the Canadian Psychological Association, June 1984, Ottawa. Convention Abstract Number 283. Paper presented at the annual convention of the Canadian Psychological Association, June 1984, Ottawa.

Linden, W. (1981) Exposure treatment for focal phobias. Archives of General Psychiatry, 38, 760-775.

Marks, I. M. and Gelder, M. G. (1965). A controlled retrospective study of behaviour therapy in phobic patients. British Journal of Psychiatry, 111, 571-573.

Marks, I. M. Fears and Phobias. Academic Press : New York.

Marks, I. M. (1970) The classification of phobic disorders. British Journal of Psychiatry, 116, 377-386.

Marks, I. M. and Herst, E. R. (1970). A survey of 1200 agoraphobics in Britain: Features associated with treatment and ability to work. Social Psychiatry, 5, 16-24.

Marks, I. M., Boulougouris, J. and Marset, P. (1971). Flooding versus desensitization in the treatment of phobic patients: A crossover study. British Journal of Psychiatry, 119, 353-375.

Mathews, A. M., Johnston, D. W., Lancashire, M. Munby, M., Shaw, P. M. and Gelder, M. G. (1976). Imaginal flooding and exposure to real phobic situations: Treatment outcome with agoraphobic patients. British Journal of Psychiatry, 29, 362-371.

Mathews, A. M. (1977). Recent developments in the treatment of agoraphobia. Behavioural Analysis and Modification, 2, 64-75.

Mathews, A. M., Gelder, M. C., and Johnston, D. W.  
(1981). Agoraphobia: Nature and Treatment. Guilford Press.  
: New York.

Havissakalian, M. (1982). Agoraphobia: The problem  
of treatment. The Behaviour Therapist, 5, 5, 173-175.

McPherson, F. M., Broughan, L. and McLaren, A.  
(1980). Maintenance of improvement in agoraphobic patients  
treated by behavioural methods - a four-year follow-up.  
Behaviour Research and Therapy, 18, 150-152.

Meichenbaum, D. H. (1977). Cognitive-behaviour  
modification: an integrative approach. Plenum: New York.

Miller, S. M. and Grant, R. P. (1979). The  
blunting hypothesis. In P. M. Sjöden, S. Bates and W.  
S. Dockens (eds.). Trends in Behaviour Therapy. Academic  
Press: New York.

Munby, M. and Johnston, D. W. (1980). Agoraphobia:  
The long-term follow-up of behavioural treatment. British  
Journal of Psychiatry, 137, 418-427.

Norton, G. R., Dinardo, P. A., and Barlow, D. H.  
(1983). Predicting phobic's response to therapy: A  
consideration of subjective, physiological, and behavioural  
measures. Canadian Psychology, 24, 1, 50-58.

Orlinsky, D. E. and Howard, K. I. (1978). The relation of process to outcome in psychotherapy. In S. L. Garfield and A. E. Bergin (Eds.) Handbook of Psychotherapy and Behaviour Change: An Empirical Analysis. Wiley : New York.

Ost, L. and Hugdahl, K. (1981). Acquisition of phobias and anxiety response patterns in clinical patients. Behaviour Research and Therapy, 19, 439-447.

Ost, L., Johansson, J. and Jerremalm, A. (1982). Individual response patterns and the effects of different behavioural methods in the treatment of claustrophobia. Behaviour Research and Therapy, 20, 445-460.

Page, E. G. (1963). Ordered hypothesis for multiple treatments: A significance test for linear ranks. American Statistical Association Journal, March.

Rachman, S. (1976). The Meaning of Fear. Penguin & Hammondsorth.

Rachman, S. (1976). The passing of the 2 stage theory of fear and avoidance. Behaviour Research and Therapy, 14, 125-132.

Rachman, S. (1977). The conditioning theory of fear acquisition: A critical examination. Behaviour Research and Therapy, 15, 375-387.

Rachman, S. (1978). Fear and Courage. Freeman : San Francisco.

Rachman, S. and Hodgson, R. (1980). Obsessions and Compulsions. Prentice Hall : Englewood Cliffs.

Rachman, S. (1983). The modification of agoraphobic behaviour: fresh possibilities. Behaviour Research and Therapy, 21, 567-574.

Rachman, S. (1984). Agoraphobia - a safety signal perspective. Behaviour Research and Therapy, 22, 59-70.

Rohs, R. G., and Noyes Jr., R. (1978). Agoraphobia: Newer treatment approaches. The Journal of Nervous and Mental Disease, 166, 10, 701-708.

Roth, M. (1959). The phobic-anxiety-depersonalisation syndrome. Proceedings of the Royal Society of Medicine, 52, 587-595.

Royal Australian and New Zealand College of Psychiatrists. (1982). A treatment outline for agoraphobia: The Quality Assurance Project. Australian and New Zealand Journal of Psychiatry, 16, 25-33.

Schachter, S. (1964). The interaction of cognitive and physiological determinants of emotional state. In L. Berkowitz (Ed.) Advances in experimental social psychology. Vol. 1, Academic Press : New York.

Shafer, S. (1976) Aspects of phobic illness - a study of 90 personal cases. British Journal of Medical Psychology, 49, 221-236.

Stampfl, T. G. and Levis, D. J. (1967). Essentials of implosive therapy: A learning-theory-based psychodynamic behaviour therapy. Journal of Abnormal Psychology, 72, 496-503.

Stampfl, T. G. and Levis, D. J. (1968). Implosive therapy: A behavioural therapy? Behaviour Research and Therapy, 6, 31-36.

Stamper, F. M. (1982). Panic disorder: Description, conceptualisation, and implications for treatment. Clinical Psychology Review, 2, 469-486.

Terhune, W. (1949). The phobic syndrome: A study of 86 patients with phobic reactions. Archives of Neurological Psychiatry, 62, 162-172.

Thorpe, G. and Burns, L. (1983). The Agoraphobic Syndrome. Wiley: Chichester.

Watson, J. P. and Marks, I. M. (1971). Relevant and irrelevant fear in flooding - A crossover study of phobic patients. Behaviour Therapy, 2, 275-293.

Westphal, C. (1871). Die Agoraphobie: eine neuropathische erscheinung. Archiv für Psychiatrie und Nervenkrankheiten, 3, 138-171.

Wilson, G. T. and O'Leary, D. (1980). Principles of Behaviour Therapy. Prentice-Hall : Englewood Cliffs.

Williams, S. L. and Rappoport, A. (1983). Cognitive treatment in the natural environment for agoraphobics. Behaviour Therapy, 14, 299-313.

Winer, B. J. (1971). Statistical Principles in Experimental Design. 2nd Ed., McGraw-Hill, New York.

Wolpe, J. (1969). The Practice of Behaviour Therapy. Pergamon Press : New York.

Appendix A

Advertisement	A1
Lehrer and Woolfolk Symptom Questionnaire	A2
Beck Depression Inventory	A3
Marks and Mathews Fear Questionnaire	A4
Agoraphobia Questionnaire	A5
Hierarchy (Confidence Level and Can Do)	A6
Goals	A7
Anxiety	A8
Medication	A9
Quality of thought stopping	A10
Quality of relaxation	A11
Client's manual	A12



Appendix A1



# **AGORAPHOBIA**

**DO YOU FEAR:**

Being away from home?  
Going out into the open, into streets, shops,  
crowds?  
Entering buses, elevators, movies?

**DO YOU FEEL in any of the above:**

Panic or Terror?  
DO these feelings prevent you from leaving  
home or otherwise seriously interfere with your  
life?

**IF YES to the above:**

A limited treatment program will be offered  
under supervision of members of the  
Psychology Department of Memorial University  
of Newfoundland in October 1983. If you wish  
to be considered, please call 737-4367  
weekdays, between 9 a.m. and 5 p.m.

## SYMPTOM QUESTIONNAIRE

NAME: \_\_\_\_\_

AGE: \_\_\_\_\_ SEX: M F DATE: \_\_\_\_\_

OCCUPATION: MARITAL STATUS: S M D Sep N

### EXAMPLE

Circle the number that indicates how you feel for each item. For example, if you feel happy often, but not all the time put:

I feel happy	0	1	2	3	4	5	6	7	8
	Never								Extremely Often

1. My throat gets dry.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
2. I have difficulty in swallowing.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
3. I try to avoid starting conversations.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
4. My heart pounds.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
5. I picture some future misfortune.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
6. I avoid talking to people in authority (my boss, policemen).  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
7. My limbs tremble.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
8. I can't get some thought out of my mind.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
9. I avoid going into a room by myself where people are already gathered and talking.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often

10. My stomach hurts.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
11. I dwell on mistakes that I made.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
12. I avoid new or unfamiliar situations.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
13. My neck feels tight.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
14. I feel dizzy.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
15. I think about possible misfortunes to my loved ones.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
16. I cannot concentrate at a task or job without irrelevant thoughts intruding.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
17. I pass by school friends, or people I know but have not seen for a long time, unless they speak to me first.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
18. I breathe rapidly.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
19. I keep busy to avoid uncomfortable thoughts.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
20. I can't catch my breath.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
21. I can't get some pictures or images out of my mind.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
22. I try to avoid social gatherings.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often

23. My arms or legs feel stiff.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
24. I imagine myself appearing foolish with a person whose opinion of me is important.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
25. I find myself staying home rather than involving myself in activities outside.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
26. I prefer to avoid making specific plans for self-improvement.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
27. I am concerned that others might not think well of me.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
28. I try to avoid challenging jobs.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
29. My muscles twitch or jump.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
30. I experience a tingling sensation somewhere in my body.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
31. My arms or legs feel weak.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
32. I have to be careful to not let my real feelings show.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
33. I experience muscular aches and pains.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
34. I feel numbness in my face, limbs, or tongue.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
35. I experience chest pains.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often
36. I have an uneasy feelings.  
0 1 2 3 4 5 6 7 8  
Never Extremely Often

BECK INVENTORY

Name: \_\_\_\_\_

Date: \_\_\_\_\_

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1. 0 I do not feel sad  
1 I feel sad  
2 I am sad all the time and I can't snap out of it  
3 I am so sad or unhappy that I can't stand it
2. 0 I am not particularly discouraged about the future  
1 I feel discouraged about the future  
2 I feel I have nothing to look forward to  
3 I feel that the future is hopeless and that things cannot improve
3. 0 I do not feel like a failure  
1 I feel I have failed more than the average person  
2 As I look back on my life, all I can see is a lot of failures  
3 I feel I am a complete failure as a person
4. 0 I get as much satisfaction out of things as I used to  
1 I don't enjoy things the way I used to  
2 I don't get real satisfaction out of anything anymore  
3 I am dissatisfied or bored with everything
5. 0 I don't feel particularly guilty  
1 I feel guilty a good part of the time  
2 I feel quite guilty most of the time  
3 I feel guilty all of the time
6. 0 I don't feel I am being punished  
1 I feel I may be punished  
2 I expect to be punished  
3 I feel I am being punished
7. 0 I don't feel disappointed in myself  
1 I am disappointed in myself  
2 I am disgusted with myself  
3 I hate myself
8. 0 I don't feel I am any worse than anybody else  
1 I am critical of myself for my weaknesses or mistakes  
2 I blame myself all the time for my faults  
3 I blame myself for everything bad that happens
9. 0 I don't have any thoughts of killing myself  
1 I have thoughts of killing myself, but I would not carry them out  
2 I would like to kill myself  
3 I would kill myself if I had the chance
10. 0 I don't cry anymore than usual  
1 I cry more now than I used to  
2 I cry all the time now  
3 I used to be able to cry, but now I can't cry even though I want to.

11. 0 I am no more irritated now than I ever am  
1 I get annoyed or irritated more easily than I used to  
2 I feel irritated all the time now  
3 I don't get irritated at all by the things that used to irritate me
  12. 0 I have not lost interest in other people  
1 I am less interested in other people than I used to be  
2 I have lost most of my interest in other people  
3 I have lost all of my interest in other people
  13. 0 I make decisions about as well as I ever could  
1 I put off making decisions more than I used to  
2 I have greater difficulty in making decisions than before  
3 I can't make decisions at all anymore
  14. 0 I don't feel I look any worse than I used to  
1 I am worried that I am looking old or unattractive  
2 I feel that there are permanent changes in my appearance that make me look unattractive  
3 I believe that I look ugly
  15. 0 I can work about as well as before  
1 It takes an extra effort to get started at doing something  
2 I have to push myself very hard to do anything  
3 I can't do any work at all
  16. 0 I can sleep as well as usual  
1 I don't sleep as well as I used to  
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep  
3 I wake-up several hours earlier than I used to and cannot get back to sleep
  17. 0 I don't get more tired than usual  
1 I get tired more easily than I used to  
2 I get tired from doing almost anything  
3 I am too tired to do anything
  18. 0 My appetite is no worse than usual  
1 My appetite is not as good as it used to be  
2 My appetite is much worse now  
3 I have no appetite at all anymore
  19. 0 I haven't lost much weight if any lately.  
1 I have lost more than 5 pounds  
2 I have lost more than 10 pounds  
3 I have lost more than 15 pounds
- I am purposely trying to lose weight by eating less  
Yes ..... No .....
20. 0 I am no more worried about my health than usual  
1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation  
2 I am very worried about physical problems and it's hard to think of much else  
3 I am so worried about my physical problems, that I cannot think about anything else
  21. 0 I have not noticed any recent change in my interest in sex  
1 I am less interested in sex than I used to be  
2 I am much less interested in sex now  
3 I have lost interest in sex completely

TABLE 1

## Fear Questionnaire

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Choose a number from the scale below to show how much you would avoid each of the situations if you could, because of fear or other unpleasant feelings. Then write the number you chose in the box opposite each situation.

	0	1	2	3	4	5	6	7	8
	Would not avoid it		slightly avoid it		Definitely avoid it		Markedly avoid it		Always avoid it
1. Main phobia you want treated (please describe in your own words) .....									<input type="text"/>
2. Injections or minor surgery .....								<input type="text"/>	<input type="text"/>
3. Eating or drinking with other people .....								<input type="text"/>	<input type="text"/>
4. Hospitals .....								<input type="text"/>	<input type="text"/>
5. Travelling alone by bus or coach .....								<input type="text"/>	<input type="text"/>
6. Walking alone in busy streets .....								<input type="text"/>	<input type="text"/>
7. Being watched or stared at .....								<input type="text"/>	<input type="text"/>
8. Going into crowded shops .....								<input type="text"/>	<input type="text"/>
9. Talking to people in authority .....								<input type="text"/>	<input type="text"/>
10. Sight of blood .....								<input type="text"/>	<input type="text"/>
11. Being criticised .....								<input type="text"/>	<input type="text"/>
12. Going alone far from home .....								<input type="text"/>	<input type="text"/>
13. Thought of injury or illness .....								<input type="text"/>	<input type="text"/>
14. Speaking or acting to an audience .....								<input type="text"/>	<input type="text"/>
15. Large open spaces .....								<input type="text"/>	<input type="text"/>
16. Going to the dentist .....								<input type="text"/>	<input type="text"/>
17. Other situations (please describe) .....								<input type="text"/>	<input type="text"/>

Leave blank →     ← Total  
AG TD SOC

Fear Questionnaire Cont'd

1

Now choose a number from the scale below to show how much you are troubled by each problem listed, and write the number in the box opposite.

	0	1	2	3	4	5	6	7	8
	Hardly at all	Slightly troublesome		Definitely troublesome		Markedly troublesome		Very severely troublesome	
18. Feeling miserable or depressed .....									
19. Feeling irritable or angry .....									
20. Feeling tense or panicky .....									
21. Upsetting thoughts coming into your mind .....									
22. Feeling you or your surroundings are strange or unreal ..									
23. Other feelings (please describe) .....									
									TOTAL
									<div style="border: 1px solid black; width: 50px; height: 20px;"></div>

How would you rate the present state of your phobic symptoms on the scale below?

	0	1	2	3	4	5	6	7	8
	No phobias present	Slightly disturbing/ not really disabling		Definitely disturbing/ disabling		Markedly disturbing/ disabling		Very severely disturbing/ disabling	

PLEASE CIRCLE ONE NUMBER BETWEEN 0 AND 8



Name: \_\_\_\_\_

Date: \_\_\_\_\_

AGORAPHOBIAINSTRUCTIONS

For each of the questions below, indicate your answer by placing an X in the appropriate place. (.X.)

1. Someone with Agoraphobia is likely to be afraid of:  
(a) Open spaces in the country (...)  
(b) Losing control in crowded public places (...)  
(c) Staying at home with someone (...)  
(d) Being with other people (...)
2. Agoraphobia panic is different from ordinary fear or shock because:  
(a) It can't be controlled very easily (...)  
(b) It causes bodily changes, such as your heart's beating faster (...)  
(c) It is an automatic bodily reaction (...)  
(d) It is the same as fear but without any real danger (...)
3. Conditioning means:  
(a) Association of a reaction with a situation (...)  
(b) Learning to be afraid (...)  
(c) An oversensitive state following an illness (...)  
(d) Learning that two things always go together (...)
4. If a child has been frightened by a large, fierce dog, would it be best to:  
(a) Keep him/her away from dogs for a while (...)  
(b) Tell him/her to be braver next time (...)  
(c) Give him/her candy to cheer him/her up (...)  
(d) Introduce him/her to a more gentle dog (...)
5. Agoraphobia is:  
(a) A mental disease such as schizophrenia (...)  
(b) Due to physical illness (...)  
(c) A learned emotional reaction (...)  
(d) Caused by a lack of willpower (...)
6. If you avoid a store where you had a panic attack:  
(a) You will find it more and more difficult to go back (...)  
(b) In time you will be able to go back without trouble (...)  
(c) You should wait until you are well before going back (...)  
(d) You should get someone else to go into the store for you (...)
7. Agoraphobic symptoms often include:  
(a) Acting insanely (...)  
(b) Feeling faint or strange (...)  
(c) Collapse through physical overstrain (...)  
(d) No special feelings (...)

8. If you succeed in going to a particular place that you have avoided for some time:
  - (a) It won't give you any more trouble (...)
  - (b) It will be even more difficult the next time (...)
  - (c) It won't have made any difference one way or the other (...)
  - (d) It will probably be slightly easier the next time (...)
  
9. Before facing a situation that you have avoided for a long time you should:
  - (a) Always take a tranquilizer (...)
  - (b) Avoid taking a tranquilizer if possible; take it only when you have to practice something new or difficult (...)
  - (c) Avoid tranquilizers completely (...)
  - (d) Take a tranquilizer if you feel panicky when going out (...)
  
10. Which would be the wrong thing to recommend for someone with agoraphobia:
  - (a) Doing things one step at a time (...)
  - (b) Taking tranquilizers before occasional practice sessions (...)
  - (c) Practicing going out every day (...)
  - (d) Having help from others with things like shopping (...)
  
11. Which of the following would be a useful description of a treatment target:
  - (a) Go out for a walk (...)
  - (b) Practice going out every day (...)
  - (c) Walk alone to the school (...)
  - (d) Try to keep calm when shopping in the supermarket (...)
  
12. Which of the following would be the best target for an agoraphobic person:
  - (a) Start practice in going shopping (...)
  - (b) Go to the local supermarket alone on a Wednesday morning, when it is least crowded (...)
  - (c) Find ways to make yourself feel differently about crowded stores (...)
  - (d) None of these (...)
  
13. Daily practice in learning to overcome avoidance is important because:
  - (a) If several days go by without practice, it may get harder (...)
  - (b) It builds confidence for harder items later (...)
  - (c) With each practice, the fear will tend to get less (...)
  - (d) All of these (...)
  
14. If you succeed the first time you practice an item, you should:
  - (a) Try it again tomorrow (...)
  - (b) Try a more difficult one (...)
  - (c) Try an easier one (...)
  - (d) Congratulate yourself and have a well-earned rest (...)

15. Which might bridge the gap between "Walking to the Supermarket" and "Going alone by bus to the school":
  - (a) Going with someone by bus to the school (...)
  - (b) Going alone for just one stop at first (...)
  - (c) Going alone, and being met at the other end (...)
  - (d) All of these (...)
16. Practice items between target behaviours are useful because:
  - (a) They are slightly easier than the last target item successfully practiced (...)
  - (b) They build confidence (...)
  - (c) They bridge any large gaps in difficulty between targets (...)
  - (d) All of these (...)
17. Suppose you succeed with practice after taking several pills but then find that you cannot manage without any. You should:
  - (a) Go on to the next most difficult item (...)
  - (b) Repeat the same item several times (...)
  - (c) Stop practice for a while (...)
  - (d) Gradually reduce the dose while practicing the same item (...)
18. Which is a correct description of treatment practice:
  - (a) Try each item once; if successful, move on (...)
  - (b) Decide on target behaviours, and practice one every day (...)
  - (c) Start practicing with easier items, and progress to more difficult ones (...)
  - (d) Use tranquilizers during all treatment practice sessions (...)
19. Which of these is likely to cause or contribute to a panic attack:
  - (a) The conditioned fear reaction to certain places (...)
  - (b) Worry about strange feelings during practice (...)
  - (c) Thinking that the fear is going to get out of control (...)
  - (d) All of these (...)
20. Which would you say indicates most progress:
  - (a) Doing something new without any trouble the first time (...)
  - (b) Trying something new even if you have to come back because of tension (...)
  - (c) Doing something new despite experiencing some panic at first (...)
  - (d) Doing something new but finishing in a total panic (...)
21. If you become frightened in a store, it would be best to:
  - (a) Try to snap out of it (...)
  - (b) Get home as soon as possible (...)
  - (c) Go to another store (...)
  - (d) Stay until you feel better (...)

22. You are on a bus. In a panic, you find yourself getting off earlier than planned. You should:
  - (a) Force yourself to get on the next bus (...)
  - (b) Try again, soon, possibly after taking a tranquilizer (...)
  - (c) Try an easier "in-between" item (...)
  - (d) All of these (...)
  
23. The best way to cope with panic during practice is to:
  - (a) Continue practice without stopping (...)
  - (b) Let it happen and wait for it to pass (...)
  - (c) Go home and relax (...)
  - (d) Take a tranquilizer as soon as possible (...)
  
24. A job or outside interest is important because:
  - (a) It provides regular practice in going out (...)
  - (b) It is a source of satisfaction away from home (...)
  - (c) Meeting new situations and people helps break the habit of avoidance (...)
  - (d) All of these (...)

APPENDIX A6

10	20	30	40	50	60	70	80	90	100
quite				moderately					
uncertain				certain					certain

	Can do	Confidence
1. ....	_____	_____
2. ....	_____	_____
3. ....	_____	_____
4. ....	_____	_____
5. ....	_____	_____
6. ....	_____	_____
7. ....	_____	_____
8. ....	_____	_____
9. ....	_____	_____
10. ....	_____	_____
11. ....	_____	_____
12. ....	_____	_____
13. ....	_____	_____
14. ....	_____	_____
15. ....	_____	_____
16. ....	_____	_____
17. ....	_____	_____
18. ....	_____	_____
19. ....	_____	_____
20. ....	_____	_____
21. ....	_____	_____
22. ....	_____	_____
23. ....	_____	_____
24. ....	_____	_____
25. ....	_____	_____
26. ....	_____	_____
27. ....	_____	_____
28. ....	_____	_____
29. ....	_____	_____
30. ....	_____	_____

NAME .....

DATE .....

GOAL(S) ,How oftenHow long

.....

.....

.....

.....

.....

.....

.....

.....

ANXIETY SCALE

Please choose a number from the scale below to show how anxious you are during the days and times listed.

0	1	2	3	4	5	6	7	8
Hardly at all	Slightly anxious		Definitely anxious		Markedly anxious		Very anxious	

	Getting up	Before lunch	Before dinner	Going to bed
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

Name: \_\_\_\_\_

Week Beginning: \_\_\_\_\_

MEDICATION

~~Please indicate below how many times you left the house and for how long.~~ In addition, where applicable, please indicate the quantity, type and strength of medication taken each day.

	MORNING	AFTERNOON	EVENING
Example		2 hours	
	1 Valium 5mg	1 Valium 5mg	1 Valium 5mg
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

Name: \_\_\_\_\_

Week Beginning: \_\_\_\_\_



APPENDIX A10  
QUALITY OF THOUGHT STOPPING

Please choose a number from the scale below which best describes the effects of your Thought Stopping/Restructuring practice.

0	1	2	3	4	5	6	7	8
Hardly any		Slightly effective		Definitely effective		Markedly effective		Very effective

	Session I	Session II	General
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

Name: \_\_\_\_\_

Week Beginning: \_\_\_\_\_

QUALITY OF RELAXATION

Please choose a number from the scale below which best describes the effects of your Relaxation practice.

0	1	2	3	4	5	6	7	8
Hardly any		Slightly effective		Definitely effective		Markedly effective		Very effective

	Session I	Session II	General
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

Name: \_\_\_\_\_

Week Beginning: \_\_\_\_\_

## Appendix 1: Clients' Manual

## Remember:

- Always circle your answer to each question before you turn to the next page to find the correct answer.
- Read the booklet several times to make sure that you understand everything and can remember the contents.
- If you do not remember everything, do not be discouraged; go back to the booklet and read it again.
- If you do not understand one of the points in the booklet, write it down and remember to ask your therapist the next time you meet.

## Appendix 1. Programmed Practice: Clients' Manual

### INTRODUCTION

This booklet is designed for people suffering from agoraphobia.<sup>1</sup> It has been written to help them understand their problem and find ways to help themselves in overcoming it.

When you have read this introduction, turn to the section headed "What is Agoraphobia?" where you will see a short test dealing with one aspect of the problem. Read this carefully and thoroughly. If you do not understand it clearly read it again more slowly.

When you understand the test, read the statement at the bottom of the page. Read the four alternative answers to each question and circle one that best completes the statement. Then turn over to the next page to see if you have answered correctly.<sup>2</sup> The most accurate alternative is always followed by the word *correct*.

If you have chosen an incorrect alternative, read the accompanying explanation. This tells you why we consider it less satisfactory than the one we have chosen as correct. Then turn back and read through the text and questions again. By doing this, you will be able to make sure that you understand each page before you turn to the next. This is very important. You must on no account omit the question at the bottom of each page.

If you have chosen the correct answer, you can turn immediately to the section headed "What Causes Agoraphobia?" (11.) Repeat the same procedure with every page until you have mastered the whole booklet.

1. These self-help instructions are intended for use by professionals or under their direct guidance. The authors strongly recommend against their unsupervised applications and assume no responsibility for any effects resulting from such use.

2. This appendix is available as a separate self-print for clients. Because it is not desirable for clients to have the answers on the same page as test and questions, the answers to this version will appear on the next page.

### WHAT IS AGORAPHOBIA?

An agoraphobic is someone who has a fear of going far from home, a fear of being alone or far from help, and a fear of crowded public places such as streets, stores, and buses.

Most agoraphobic people also fear that they will lose control over their own reactions, and that their fear will get completely out of control and lead to a panic attack or something worse.

Because of this fear, they tend to avoid places that could trigger it, and this avoidance tends to become a habit. Often they feel better with someone they know well, and so they come to depend on having a companion when they go out. Once a person regularly avoids going out alone or avoids many different places for this reason, he/she is said to have agoraphobia.

Agoraphobia is quite a common problem: about 1 in 160 people suffer from it. More than two-thirds of agoraphobics are women.

Someone with agoraphobia is likely to be afraid of:

- 1a) Open spaces in the country.
  - 1b) Losing control in crowded public places.
  - 1c) Staying at home with someone.
  - 1d) Being with other people.
- 
- 1e) Open spaces in the country.  
Agoraphobia is often called a fear of open spaces but this is misleading. This fear is sometimes present, but so is a fear of small, enclosed spaces.
  - 1b) Losing control in a crowded public place.  
Correct. This common fear develops in most people with agoraphobia.
  - 1c) Staying at home with someone.  
Staying at home instead of going out is a common problem. However, agoraphobics are not usually afraid at home unless they are alone.
  - 1d) Being with other people.  
On the contrary, a companion—especially a familiar person—can prevent the fear, although crowds may be frightening.

### WHAT CAUSES AGORAPHOBIA? 11

Agoraphobia is not connected with serious mental disease such as schizophrenia, nor is it connected with any known physical illness.

It is caused, in the first place, when the body reacts to everyday situations as if they were dangerous and frightening. In the second place, it is caused by the worry caused by these strange feelings, and in the third place, by the fact that agoraphobia tends to avoid places connected with these feelings.

To understand this, think about the way your body reacts at a time of real danger—say, a near miss in what could have been a fatal accident. Your heart may beat hard and fast, your stomach may churn, you may sweat and tremble, and so on. The exact reaction varies from person to person, but it is usually strong enough to cause a feeling of "shock" after an accident.

In agoraphobia, it is as if this bodily reaction has become over-sensitive, so that it tends to be triggered automatically, by quite ordinary situations that are not dangerous.

#### 0

Agoraphobic panic is different from ordinary fear or shock because:

- 1a) It can't be controlled very easily.
- 1b) It causes bodily changes, such as your heart's beating faster.
- 1c) It is an automatic bodily reaction.
- 1d) It is the same as fear but without any real danger.

1a) It can't be controlled very easily.

No fear, whether agoraphobic or of other kinds, can be controlled easily.

1b) It causes bodily changes.

All kinds of fear, agoraphobic and others, can cause bodily changes, such as your heart beating faster.

1c) It is an automatic bodily reaction.

All kinds of fear, agoraphobic and others, involve an automatic bodily reaction.

1d) It is the same as fear, but without any real danger.

Correct. There are no obvious differences between the experience of extreme fear and agoraphobic panic, only between the situations that trigger them.

## WHAT CAUSES AGORAPHOBIA? (III)

It is not always possible to say what started the oversensitivity that leads to the first panic reaction. Sometimes it follows a physical illness or pregnancy, when physical resistance is low; sometimes it follows an emotional shock; and in some cases, it happens at a time of prolonged tension that has some other reason.

Whatever the cause, once it has taken place a few times, it starts to happen more frequently in certain places.

The reason for this is a special kind of learning called *conditioning*. To understand this, think of the reaction of a child when it meets a dog for the first time. If by bad luck the dog barks loudly and frightens the child, then the next time the child sees a dog, he/she may feel nervous and even run away.

Conditioning is the name given to the way that fearful reactions come to be associated or connected with particular things or places. This association is learned in a completely automatic way—it happens whether you want it or not.

## Conditioning means:

- (a) Association of a reaction with a situation.
- (b) Learning to be afraid.
- (c) An over-sensitive state following an illness.
- (d) Learning that two things always go together.

## An Association of a reaction with a situation.

**Correct.** Conditioning describes the way in which everyone learns to react automatically to particular things or places.

## Learning to be afraid.

Learning to be afraid of some situations would be an example of conditioning, but the question asked for the general meaning of conditioning.

## An over-sensitive state following an illness.

No. This state may cause panic feelings, but the word conditioning refers to the way the feelings are later attached to particular things or places.

## Learning that two things always go together.

This is not quite accurate, since it does not indicate that reactions become automatically associated with particular things.

## WHAT CAUSES AGORAPHOBIA? (III)

The child's first reaction of fear to a dog is not abnormal since some dogs may be dangerous and it is best to learn caution. In time, provided the child meets friendly dogs and is not bitten, the automatically "unconditioned" fear will die away. But if dogs are avoided after the first frightening encounter, the fear may persist. If this happens it can lead to a permanent fear of dogs—a "dog phobia."

In the case of agoraphobia, panic reactions become attached to particular situations (and ideas) by the same process of conditioning. Even after the "unconditioned" state that caused the fear reactions in the first place has died away, the conditioned fear keeps on. Since this fear results in the avoidance of places associated with these reactions, there is no reason for the phobia to get better.

If a child has been frightened by a large, fierce dog, would it be best to:

- (a) Keep him/her away from dogs for a while.
- (b) Tell him/her to be braver next time.
- (c) Give him/her candy to cheer him/her up.
- (d) Introduce him/her to a more gentle dog.

## Keep him/her away from dogs for a while.

If this is done, the conditioned fear is left untouched, and it may even get worse.

## Tell him/her to be braver next time.

Talking does not usually do anything to reduce conditioned fear. A different kind of experience with a dog is necessary.

## Give him/her candy to cheer him/her up.

This may cheer the child up, but it will not do anything to reduce the fear—unless perhaps you give the child candy when he/she is getting nearer to a dog.

## Introduce him/her to a more gentle dog.

**Correct.** This will reduce the conditioned fear and stop it from spreading to all dogs, without preventing the child from being appropriately cautious with fierce ones.

## SUSAN'S STORY

1. Agoraphobia usually starts with panic reactions coming "out of the blue."
2. They are more likely to happen when one is alone or away from home.
3. These reactions tend to be associated with the particular places where they happen.
4. This conditioning leads to avoidance of these places, which tends to become a habit.

## Agoraphobia is:

- (a) A mental disease such as schizophrenia.
- (b) Due to physical illness.
- (c) A learned emotional reaction.
- (d) Caused by a lack of willpower.

## (a) A mental disease such as schizophrenia.

No. The two things are quite different. Go back to "What Causes Agoraphobia?" and read it again.

## (b) Due to physical illness.

The first panic attack may have followed a physical illness, but there is no reason to think that agoraphobics continue to be physically ill in any way. Go back to "What Causes Agoraphobia?" and read it again.

## (c) A learned emotional reaction.

Correct. Although other kinds of behavioral learning occur later (like learning to avoid illness, the emotional reaction is usually learned first).

## (d) Caused by lack of willpower.

It makes no more sense to call it a lack of willpower than it does to say that about someone who jumps when there is a loud noise. Go back to "What Causes Agoraphobia?" and read it again.

## WHAT KEE'S AGORAPHOBIA GOING? (I)

You might expect that if conditioned fear reactions were ignored and the person kept on going out, the reactions would gradually fade away. Why does this not happen in agoraphobia?

The main reason is that the natural reaction to feelings of panic that cannot be understood is to avoid the places in which they happen. Unfortunately, this seems to have the effect of actually strengthening the conditioned fear. The longer the avoidance goes on, the stronger it can become.

People often feel that they can help by getting things for an agoraphobic as that person doesn't have to go out. However, this only makes the habit of avoidance stronger.

It is very common to find that people with agoraphobia depend, for going out, on others who take them to them. This is because a person, remaining perfectly sane, make frightening situations seem safer. The trouble is that depending on other people tends to become a habit, just as avoiding places does.

If you avoid a store where you had a panic attack:

- (a) You will find it more and more difficult to go back.
- (b) In time you will be able to go back without trouble.
- (c) You should wait until you are well before going back.
- (d) You should get someone else to go into the store for you.

## (a) You will find it more and more difficult to go back.

Correct. Avoidance tends to strengthen conditioned fear. No. Time is likely to have the opposite effect.

## (c) You should wait until you are well before going back.

You are probably as ready to begin now as you will be. Waiting too long may make it more difficult.

## (d) You should get someone else to go in the store for you.

If you do this, you will be helping to establish a habit of avoidance and the fear will grow stronger. You would not be helping yourself.

## WHAT KEEPS AGORAPHOBIA GOING? (iii)

When you are frightened by a real danger, your whole mind is usually occupied with doing something about it. In the case of agoraphobia, the same feeling of fear seems to start and keep on, for no reason at all. There seems to be nothing that can be done about it. For this reason, there is a tendency to dwell on the feelings themselves. This just makes them worse.

Agoraphobic people may feel dizzy or breathless, get a feeling of weakness in their legs, or experience their heart pounding. Some feel that everything seems unreal, like a dream. Worrying about these feelings tends to get them more firmly fixed, like a habit. It is only too easy to get in to the vicious circle of worrying and being afraid of the feelings of fear themselves. Some people think that they might make a fool of themselves in public, that they might faint or be sick, or collapse and perhaps injure themselves. Some even fear permanent loss of control or insanity.

In actual fact, agoraphobics run no more risk of any of these things than anyone else does.

## Agoraphobic symptoms often include:

- (a) Acting anxiously.
- (b) Feeling faint or strange.
- (c) Collapse through physical overstrain.
- (d) No special feelings.

## (a) Acting anxiously.

"Agoraphobics often fear that they will act insanely but never do."

## (b) Feeling faint or strange.

Correct. These feelings and others of the same sort are very common, and although alarming, they are quite harmless.

## (c) Collapse through physical overstrain.

Agoraphobics often fear that they may collapse, but they are no more likely to do so than anyone else. Often they get little exercise, so they feel exhausted when they practice going out, but this does no harm.

## (d) No special feelings.

With the exception of those who have given up and never go out, agoraphobics do experience feelings that are unusual for most people in ordinary circumstances.

## HOW CAN AGORAPHOBIA BE TREATED? (i)

If you have followed so far, you already have some idea of how agoraphobia should be treated—it is just the opposite of the way it is kept going.

The most important step is to stop avoiding the feared places. It is only by gradual practice in those places that the fear will be overcome. And because the fear has been developing for a long time, you will need a long time to get rid of it. This means that you will have to practice facing the feared situations over and over again until your confidence returns. In other words, a person with agoraphobia must get him the daily habit of leaving home to practice walking, going into stores, traveling on buses, or facing the feared things, wherever they are. Of course, you cannot expect all these things to be done at once; each situation has to be practiced in stages, one step at a time. You build up confidence by doing the easier things first, before gradually doing more and more difficult ones.

If you succeed in going to a particular place that you have avoided for some time:

- (a) It won't give you any more trouble.
- (b) It will be even more difficult the next time.
- (c) It won't have made any difference one way or the other.
- (d) It will probably be slightly easier the next time.

## (a) It won't give you any more trouble.

Even though you have not gone over a period of years won't go away as quickly as that.

## (b) It will be even more difficult the next time.

No. It is usually only the experience of panic attacks or the avoidance of a place that makes it more difficult to go there. Go back to "What Keeps Agoraphobia Going?" and read it again.

## (c) It won't have made any difference one way or the other.

It may not make any obvious immediate difference in every case, but on average it is likely to reduce the fear.

## (d) It will probably be slightly easier the next time.

Correct. It will not always be obvious right away, since there are bound to be ups and downs. But on the average, it will tend to get easier each time.

### HOW CAN AGORAPHOBIA BE TREATED? (III)

Practice in facing situations that have been avoided for a long time is often frightening. Therefore you will have to expect some fear and try to find ways to cope with it. This does not mean forcing yourself to the point of total panic all the time, but it does mean that the main point of practice is to experience *some* fear without overreacting and making it worse. Given time, and provided that you don't run away from it, the fear will always fade away.

When doing something difficult for the first time, it occasionally helps to take a tranquilizer (if one has been prescribed) just beforehand. However, it is usually better to *manage* without pills. If you do use them, it should be only the first time you tackle something that you have been avoiding.

Similarly, it is *not* a good idea to rely on help from others, if this means that they are doing things for you. This can only lead you to depend on them. Equally, well-meaning sympathy only encourages you to dwell on your problems. Instead, you must do something about them.

**Before practicing you should:**

- (a) Always take a tranquilizer.
- (b) Avoid taking a tranquilizer if possible; take it only when you have to practice something new or difficult.
- (c) Avoid tranquilizers completely.
- (d) Take a tranquilizer if you feel panicky when going out.

(e) *Always take a tranquilizer.*

No. If you take a tranquilizer every time, you will not learn to rely on yourself.

(b) *Avoid taking a tranquilizer if possible; take it only when you have to practice something new or difficult.*

Correct. A tranquilizer can help you tackle, for the first time, items that are particularly difficult. However, you should repeat the item without the aid of a tranquilizer as soon as possible.

(c) *Avoid tranquilizers completely.*

No. There are occasions when a tranquilizer can help you.

(d) *Take a tranquilizer if you feel panicky when going out.*

No. By then it is too late for it to have an effect. In any case, it is better for you to learn to cope with the anxiety in the way we explain later.

### SUMMARY OF TREATMENT PLAN

1. Practice facing the feared situations every day.
2. Plan progress from easier to difficult situations.
3. Expect to experience *some* fear when practicing; the point of the exercise is to cope with the feelings instead of overreacting to them.
4. Use tranquilizers only when it is necessary to help with new and particularly difficult situations.
5. Avoid relying on others or dwelling on your own problems and symptoms. Concentrate on help that leads to doing things for yourself.

Which would be the wrong thing to recommend for someone with agoraphobia?

- (a) Taking things one step at a time.
- (b) Taking tranquilizers before occasional practice sessions.
- (c) Practicing going out every day.
- (d) Having help from others with things like shopping.

(a) *Doing things one step at a time.*

This is a good thing to recommend for someone with agoraphobia, as it builds up confidence for more difficult items. The question asked which was the wrong thing.

(b) *Taking tranquilizers before occasional practice sessions.*

This does help when particularly difficult items are practiced for the first time, so it cannot be the wrong thing to recommend.

(c) *Practicing going out every day.*

It is only by practice in facing the feared situations that the fear will be overcome, and it is important to get into the habit of doing this daily, so this cannot be wrong.

(d) *Having help from others with things like shopping.*

Correct. It is not helpful in the long run to get someone else to do the shopping. It simply makes it easy for you to stay at home and makes the habit of avoidance stronger.



## TREATMENT IN PRACTICE: STEP 1

To begin with, you will have to decide exactly what you are aiming for. In other words, what are the treatment targets?

This is not as easy as it sounds. It is no good saying something like "I just want to get better." You must decide on specific descriptions of behaviour.

Examples could be "Going by myself to the supermarket for groceries," or "Going alone by bus to the school to meet the children."

Make a written list of all the things that you would like to do if you were completely recovered.

Do not forget difficult things (such as long trips) that you have avoided for many years. Anything you think you want to do someday and cannot do now because of your phobia can be put in the list as a long-term target.

Lastly, you must put all the items on the list in order, from the least difficult to the most difficult. Make a careful note of this order—you will be using it later.

Which of the following would be a useful description of a treatment target?

- (a) Go out for a walk.
- (b) Practice going out every day.
- (c) Walk alone to the school.
- (d) Try to keep calm when shopping in the supermarket.

*(a) Go out for a walk.*

This is not quite clear enough. How long should the walk last? How far should you go before you feel that you have succeeded?

*(b) Practice going out every day.*

Of course you should practice going out every day, but this is not really a treatment target. It is a habit that you want to adopt.

*(c) Walk alone to the school.*

Correct. This is a useful description of a treatment target. It is precise, so that you will know when you have successfully completed the item.

*(d) Try to keep calm when shopping in the supermarket.*

Telling yourself to "try to keep calm" isn't a useful description of a treatment target. It is too vague for you to know exactly what to do.

## WHY ARE SPECIFIC DESCRIPTIONS OF BEHAVIOUR IMPORTANT?

**Agoraphobia cannot be treated like a physical disease. You have to change in the way you behave.** You can think of the phobia as showing itself in three main ways: feelings (of fear); thoughts (about what awful things might happen); and behaviour (avoiding things). Of course, these are all connected with each other, but the only way to start things moving in the right direction is by changing the behaviour. This will lead to changes in thoughts and feelings later on.

It is because you have to change your behaviour that you must have very specific descriptions of what it is you are to change. Your descriptions must be specific so that you avoid misunderstanding about what is to be practised. And you must not be in doubt and must not be able to decide yourself about whether something has been done successfully or not.

Provided your list includes enough specific behaviours, you will be able to use them to keep a careful track of your progress as treatment continues.

Which of the following would be the best target for an agoraphobic person?

- (a) Start practice in going shopping.
- (b) Go to the local supermarket alone on a Wednesday morning, when it is least crowded.
- (c) Find ways to make yourself feel differently about crowded stores.
- (d) None of these.

*(a) Start practice in going shopping.*

This is a good thing to do, but it is not specific enough.

*(b) Go to the local supermarket alone on a Wednesday morning, when it is least crowded.*

Correct. This target makes clear exactly what you have to do.

*(c) Find ways to make yourself feel differently about crowded stores.*

No, this is not a behaviour target. Of course, you want to feel differently, but you can achieve this only by practising new behaviours.

*(d) None of these.*

No. One of these would be a good way to deal with a fear of crowded stores.

## TREATMENT IN PRACTICE: STEP 2 (II)

It is very important that you set aside adequate time for practice every day.

Start with the easiest item on the list that you *cannot* do at the moment. Let us suppose that this is "walking alone to the supermarket for groceries." Begin practice in walking toward the supermarket every day. Never mind whether you actually get there or not at first. Make a careful note of how far you get each time.

It is not so very important to reach the supermarket right away. However, it is important to get into the habit of daily practice in trying to get there because this is the opposite of avoidance.

Daily practice in learning to overcome avoidance is important because:

- (a) If several days go by without practice, it may get harder.
- (b) It builds confidence for harder items later.
- (c) With each practice, the fear will tend to get less.
- (d) All of these.

(a) If several days go by without practice, it may get harder.

It is true that by not practicing for several days, you learn to avoid the feared situation, and this may increase the fear again. However, daily practice is also important for other reasons.

(b) It builds confidence for harder items later.

Success with easier items does build confidence for attempting more difficult ones later. Daily practice is the best way to achieve this, but increased confidence is not the only advantage of daily practice.

(c) With each practice, the fear will tend to get less.

Regular practice in going out will gradually reduce the fear you feel. However, daily practice is helpful in other ways as well.

(d) All of these.

Correct. All of these are reasons that you should practice daily.

## TREATMENT IN PRACTICE: STEP 2 (III)

Repeat each exercise several times to find out if you can gradually do more each time. You must expect some ups and downs from day to day, depending on how you feel. So keep going for several days before deciding whether there are any signs of improvement. To know this, you will have to keep a careful check of how far you get and how long you are out.

If you succeed in completing the item, do not assume that it is finished. Try it a few more times to make sure.

If you continue to be successful, move on to the next, more difficult item. If you do not seem to be making any progress, despite honestly trying your hardest, you should move to Step 3 in these instructions.

If you succeed the first time you practice an item, you should:

- (a) Try it again tomorrow.
- (b) Try a more difficult one.
- (c) Try an easier one.
- (d) Congratulate yourself and have a well-earned rest.

(a) Try it again tomorrow.

Correct. Now that you have achieved the item once, you should repeat it a few times to check it and to increase your confidence.

(b) Try a more difficult one.

A single success does not mean that the item is finished. You should repeat it a few times to make sure.

(c) Try an easier one.

No. There would be no point in going back when you are winning.

(d) Congratulate yourself and have a well-earned rest.

No. By "resting," you are avoiding going out, and this is just what you must not do.

## TREATMENT IN PRACTICE: STEP 3 (II)

If your progress has come to a halt, try to find out why. It may be that the item you have chosen is too difficult at the moment, or it may require too big a jump from what you have been doing.

First, check to see whether the original order of difficulty of your list has changed for some reason. You may find that some items that seemed very difficult at first are now easier than the ones you have been attempting.

If you find that this is not the case and that the easiest item not yet done is still the one you have been trying, you will have to invent some practice items in between where you are now and the next target, to bridge the gap.

Suppose that after (1) "Walking alone to the supermarket" has been done successfully, the next one should be (2) "Going by bus to the school." Your job is to invent some items in between (1) and (2) in difficulty.

Which might bridge the gap between "Walking to the supermarket" and "Going alone by bus to the school"?

- (a) Going with someone by bus to the school.
- (b) Going alone for just one stop at first.
- (c) Going alone, and being met at the other end.
- (d) All of these.

(a) Going with someone by bus to the school.

This is one way of bridging the gap, but other items might be used as well.

(b) Going alone for just one stop at first.

Traveling for just one stop would be a useful in-between item, but it is not the only possibility.

(c) Going alone and being met at the other end.

This item could be used, but it might be too difficult at first. Other, slightly easier items might be needed as well.

(d) All of these.

Correct. All of these would be ways of bridging the gap between the items, as they are more difficult than (1) but less difficult than (2).

## TREATMENT IN PRACTICE: STEP 3 (III)

These in-between items will not necessarily be useful for their own sake. It might not be useful, for example, to travel on a bus for just one stop. However, the point is, of course, that they build the confidence you need to practice later items which are useful, and which will seem much too difficult at first.

It is obviously very important to choose in-between items carefully, as well as to decide how many might be needed and how many times to practice them. However, you will have to be prepared to be flexible about these items. If you experience persistent difficulty in making progress with the in-between items chosen at first, try alternatives.

Once the target item has been successfully completed a few times, it will probably not be necessary to practice the in-between items anymore. However, at regular intervals, the target items must be practiced. If not, it is a part of everyday life — a habit.

Practice items between target behaviors are useful because:

- (a) They are slightly easier than the last target item successfully practiced.
- (b) They build confidence.
- (c) They bridge any large gaps in difficulty between targets.
- (d) All of these.

(a) They are slightly easier than the last target item successfully practiced.

No. They should be slightly more difficult than the last target item successfully practiced.

(b) They build confidence.

It is true that practicing in-between targets builds confidence, but that is not an end in itself. There is a more specific reason for using them.

(c) They bridge any large gaps in difficulty between targets.

Correct. Because they bridge any large gaps in difficulty, smooth progress can be continued and confidence increases until it is time to try the next target.

(d) All of these.

No. Not all of the answers are correct.

## TREATMENT IN PRACTICE: STEP 4

Suppose that progress seems to be held up because you are experiencing too much fear during practice or just before it. It may be useful to take a single dose of a tranquilizer (provided your doctor has prescribed one) shortly before the practice.

Find out when the medication seems to have the most effect (this might be anywhere from 10 minutes to a few hours after you have taken it). Note also when you generally feel most tense: before going, on the way, or coming back. Take the medication so that the maximum effect comes at the time when you are likely to feel at your worst.

Don't exceed the maximum dose recommended. Don't drink anything alcoholic. And look out for side effects like drowsiness. These might not matter, but throwing up, for example, would be important if you were to do any driving.

Otherwise you can start with a reasonably large dose, and if this overcomes the problem, then you can gradually bring the dose down. You should ask your doctor if you are unsure about the dose to take.

Suppose you succeed with practice after taking several pills but then find that you cannot manage without any. You should:

- Go on to the next most difficult item.
- Repeat the same item several times.
- Stop practice for a while.
- Gradually reduce the dose while practicing the same item.

(a) Go on to the next most difficult item.

As a rule, you should not go on to a more difficult item until the current one has been successfully completed. Going on will only lead to more difficulties.

(b) Repeat the same item several times.

When an item has been achieved for the first time, it is useful to repeat it. However, when tranquilizers have been used, simply repeating the item with the same dose is not the most useful thing to do.

(c) Stop practice for a while.

No. There is no reason to think that this will help, and it may be more difficult to start again after a pause.

(d) Gradually reduce the dose while practicing the same item.

Correct. By repeating the item with a gradual reduction in dose, you should eventually be able to do it without any tranquilizers at all.

## SUMMARY OF TREATMENT IN PRACTICE

- Decide on target behaviors.
- Start practicing with the least difficult items.
- Repeat each item a few times; if successful, move on.
- If progress stops, find some in-between items.
- Use tranquilizers only for new or difficult items; then reduce the dose.
- Try to establish the habit of practice every day.

Which is a correct description of treatment practice?

- Try each item once; if successful, move on.
- Decide on target behaviors, and practice one every day.
- Start practicing with easier items, and progress to more difficult ones.
- Use tranquilizers during all in-between practice sessions.

(a) Try each item once; if successful, move on.

No. Each item should be practiced more than once before you move on.

(b) Decide on target behaviors, and practice one every day.

It is essential to practice every day, but it is sometimes necessary to use items "in between" targets.

(c) Start practicing with easier items, and progress to more difficult ones.

Correct. It is important to move from less difficult to more difficult items as this method helps to build up confidence for the more difficult ones.

(d) Use tranquilizers during all treatment practice sessions.

Tranquilizers should be used only for difficult practice sessions, not for all sessions.

### COPING WITH FEELINGS OF PANIC III

As was mentioned earlier, panic feelings at the beginning of the phobia seem to come "out of the blue." Later on, panic is often triggered by the (foundational) fear reaction to some places or situations. These reactions die down quite quickly—if they are allowed to. Usually they are kept going by the alarming thoughts they cause (fear of the feelings of fear) and by attempts at avoidance. The best advice—and the most difficult to follow—is "Let it happen and wait for it to pass."

Practicing in stages and the occasional use of tranquilizers make attacks of panic unlikely, but, of course, some fear must be expected. After all, everybody gets twinges of fear and other unpleasant feelings sometimes. More than this, it is part of recovery from agoraphobia to accept these unpleasant feelings for what they are and to cope with them—without running away or giving up.

Which of these is likely to cause or contribute to a panic attack?

- (a) The conditioned fear reaction to certain places.
- (b) Worry about strange feelings during practice.
- (c) Thinking that the fear is going to get out of control.
- (d) All of these.

(a) The conditioned fear reaction to certain places.

The conditioned fear reaction to certain places is likely to trigger panic feelings, but other things contribute as well.

(b) Worry about strange feelings during practice.

Worry about strange feelings often makes panic feelings worse, but other things are also involved.

(c) Thinking that the fear is going to get out of control.

Thinking that the fear will get out of control certainly does make panic feelings worse, although other things are also involved.

(d) All of these.

Correct. Each of the things described can play a part in bringing about a panic attack.

### COPING WITH FEELINGS OF PANIC III

At the beginning, agoraphobia was described as a fear of going out alone. Just as important, it is a fear that the symptoms of fear will themselves get out of control. For this reason, an essential part of practice must be to deliberately do things that produce some fear in order to practice coping with it. This does not mean getting into a total panic, but it does mean that the most useful practice involves doing things that bring on the feelings, coping with them, and going on. Practicing things that don't cause any fear at all—to make sure of them—is also helpful. However, this is not how real progress is made.

It is important to remember that one of the purposes of practice is to learn a new attitude of mind toward panic feelings. This attitude means no longer trying to avoid them at all costs, but going out to meet them. You must deal with these feelings as much as possible and also accept the remaining feelings as natural, if unpleasant bodily feelings.

Which would you say indicates most progress?

- (a) Doing something new without any trouble the first time.
- (b) Trying something new even if you have to come back because of tension.
- (c) Doing something new despite experiencing some panic at first.
- (d) Doing something new but finishing in a total panic.

(a) Doing something new without any trouble for the first time.

This is obviously encouraging but does not necessarily mean that it will be as easy every time. Moreover, you may not be confident of it when not at your best.

(b) Trying something new even if you have to come back because of tension.

This is no indication of progress, since this was probably what happened when the agoraphobia was getting worse.

(c) Doing something new despite experiencing some panic at first.

Correct. When you can manage this, you know you are making progress both in what you can do and in coping with fear.

(d) Doing something new but finishing in a total panic.

This could be a step forward or a step back, depending on whether you can do it again some with less panic. In general, you should avoid leaving off when still in a panic.

### COPIING WITH FEELINGS OF PANIC (III)

Suppose you are out practicing when suddenly you feel frightened by a strange feeling. Do not immediately go home. Try to find somewhere to rest, sit down somewhere, walk back a little way—do anything that will help you stay in or near the place where the feeling started.

Remind yourself that these are just unpleasant bodily feelings that you had expected anyway. They cannot harm you. They do not mean that something awful will happen. It won't. Don't be fooled into thinking that way.

In time, the feelings will go down. Although you can then go back home, it would be better to go on practicing for a little while before doing so. Fortunately, once panic has come and gone, it is unlikely to come back again for a while. For this reason, you can sometimes make a panic attack an occasion for more progress.

The golden rule is to try never to leave a situation until the fear is going down.

If you become frightened in a store, it would be best to:

- (a) Try to snap out of it.
- (b) Get home as soon as possible.
- (c) Go to another store.
- (d) Stay until you feel better.

(a) Try to snap out of it.

Yes, of course you should, but the question was getting at something more specific.

(b) Get home as soon as possible.

Going home immediately might make avoidance more likely the next time, because you have "learned" that only after going home does the fear go down.

(c) Go to another store.

Going to another store might help, provided that it is nearby. There is a danger, however, that you will learn to be afraid of, and avoid, the first store.

(d) Stay until you feel better.

Correct. It is possible to stay until the fear goes down, this might make it easier for you to cope next time.

When panic starts, sensible thinking stops. You cannot depend on being able to think very clearly at the time. For this reason, you should read through the 10 rules that follow very carefully before practicing, so that they are clear in your mind. When you feel panicky, run through them again. It is a good idea to make a copy of the shorter list below to carry with you to read at the time. If you find other ideas that help, add them to the list.

Below is a shortened version of the rules that follow. These are designed to act as reminders. First, read the rules in full, then read the shortened form and see if you can remember when using only the reminders to prompt you.

1. The feelings are normal bodily reactions.
2. They are not harmful.
3. Do not add frightening thoughts.
4. Describe what is happening.
5. Wait for fear to pass.
6. Notice when it fades.
7. It is an opportunity for progress.
8. Think of what you have done.
9. Plan what to do next.
10. Then start off slowly.

### TEN RULES FOR COPING WITH PANIC

1. Remember that the feelings are nothing more than an exaggeration of the normal bodily reactions to stress.
2. They are not in the least harmful or dangerous—just unpleasant. Nothing worse will happen.
3. Stop adding to panic with frightening thoughts about what is happening and where it might lead.
4. Notice what is really happening in your body right now, not what you fear might happen.
5. Wait and give the fear time to pass. Do not fight it or run away from it. Just accept it.
6. Notice that once you stop adding to it with frightening thoughts, the fear starts to fade by itself.
7. Remember that the whole point of practice is to learn how to cope with fear—without avoiding it. So this is an opportunity to make progress.
8. Think about the progress you have made so far, despite all the difficulties. Think how pleased you will be when you succeed this time.
9. When you begin to feel better, look around you, and start to plan what to do next.
10. When you are ready to go on, start off in an easy, relaxed way. There is no need for effort or haste.

## SETBACKS

Hardly anyone recovers from agoraphobia without having at least one "setback." Feelings vary, sometimes from day to day, and what you did successfully yesterday may seem impossible today. Even then, you could make real progress. What counts is how you cope with whatever feelings you experience. So, a little done on a bad day can be worth more than a lot done on a good day.

Most people feel that they have their worst setbacks after severe panics, especially if they ran away before the fear started going down. If this happens and you feel that you are back to "square one," do not give up. Simply try again the next day, preferably after taking a tranquilizer. If you do this, you should find that the lost ground can be made up quite quickly. Provided that you do not give up when things look black, your chances of eventual recovery are very good indeed.

You are on a bus. In a panic, you find yourself getting off earlier than planned. You should:

- Force yourself to get on the next bus.
- Try again, soon, possibly after taking a tranquilizer.
- Try an easier "in-between" item.
- All of these.

1a) Force yourself to get on the next bus.

This sometimes works but has some dangers. If the same thing happens again, it might get more and more difficult to go on practicing.

1b) Try again soon, possibly after taking a tranquilizer.

Correct. You should, of course, try not to get off the bus in the first place. However, once this has happened, it would be best to try again when you are calmer.

1c) Try an easier "in-between" item.

This is one possibility, but there is something else that you could try first.

1d) All of these.

No. Some are not advisable.

## SUMMARY: COPING WITH FEELINGS OF PANIC

- Expect some fear, encourage it to happen sometimes, and learn ways of coping with it.
- Try to stay in or near the place where it started. If not somewhere, and wait for it to pass.
- Go back slowly a short way if necessary, but don't rush away.
- Remind yourself of the 10 rules for dealing with panic.
- When the fear goes down, continue practice if possible.
- If you have to return home before the fear dies away, try to go back soon.
- Sony setbacks are inevitable. Expect them and don't give up.

The best way to cope with panic during practice is to:

- Continue practice without stopping.
- Let it happen and wait for it to pass.
- Go home and relax.
- Take a tranquilizer as soon as possible.

1a) Continue practice without stopping.

This might work, but there is a risk that the panic will increase until it is impossible to do anything except go home.

1b) Let it happen and wait for it to pass.

Correct. This is always the best course, although it will need persistent practice to learn how to do it.

1c) Go home and relax.

No. This should be avoided if at all possible. If you go home, you will probably need to repeat the practice soon with a tranquilizer.

1d) Take a tranquilizer as soon as possible.

This is unlikely to work fast enough to help right away, although it could be used before the next practice.

### PLANNING FOR THE LONG RUN

Many people find that their difficulties in going out have progressively cut them off from friends, social activities, and other outings that they used to enjoy. For this reason, they settle into a routine that centers on the home, leaving no time for anything else. An essential part of recovery is to change this routine completely and to make time for developing interests outside your house. You must start to visit friends, join clubs or classes, and, best of all, find a job. These are not things to do later on; they are important ways of helping yourself now. They provide regular opportunities for practice in going out and meeting people, quite apart from the satisfaction that they will give you in themselves.

Always try to use visits or outings as practice, by varying and extending what you do. You may do anything from going to a further store to going off alone when out on a trip with others. Once going out has changed from something to be avoided to an opportunity to practice, you have taken the most important step toward recovery.

A job or outside interest is important because:

- It provides regular practice in going out.
- It is a source of satisfaction away from home.
- Meeting new situations and people helps break the habit of avoidance.
- All of these.

(a) It provides regular practice in going out.

This is one of the main reasons, although there are others.

(b) It is a source of satisfaction away from home.

This is an important aspect of a job or outside interest, but there are other more direct effects that are just as important.

(c) Meeting new situations and people helps break the habit of avoidance.

This is one of the important advantages of a job or outside interest, although there are other important aspects.

(d) All of these.

Correct. Several different reasons add together to make getting a job and developing outside interests important aims.

### SUMMARY OF TREATMENT

1. Practice in facing the situations you fear will help you to regain your lost confidence. It is important for you to practice regularly, even if only for short periods at a time.

2. Start practicing with the easiest situations on the list of things that you are avoiding at the moment. Move on to the next situation when you have completed the first one successfully.

3. Feelings of panic may occur from time to time, but it is important that you face them without running away. Remember that learning to cope with fear, rather than just avoiding it, is the main aim of treatment.

4. At times, it may seem that you are not progressing as fast as you would like. You may even experience occasional setbacks. Don't worry—this is regular practice you are bound to overcome your difficulties in the long run.



Appendix B

Subject Key

B1

Raw Scores, mean, standard deviations

- Total anxiety

B2

- Cognitive anxiety

B3

- Behavioural anxiety

B4

- Somatic anxiety

B5

- Total fear

B6

- Agoraphobia

B7

- Blood and Injury

B8

- Social

B9

- Mood

B10

- Incapacity

B11

- Depression

B12

- Confidence level

B13

- Can do

B14

- Anxiety scale

B15

- Thought stopping/relaxation	B16
- Understanding of agoraphobia	B17
- Pulse rate	
- Base	B18
- Image I	B19
- Image II	B20
- Image III	B21
- Rest	B22
- Imagery pulse rate	B23
- Imagery	
- Somatic	B24
- Behavioural	B25
- Cognitive	B26
- General	B27

Table B1

RAW SCORES : SUBJECT KEY

Subject ( 1 )	Matched Group	Cognitive Subject	Cognitive Treatment
Subject ( 2 )	Matched Group	Cognitive Subject	Cognitive Treatment
Subject ( 3 )	Matched Group	Cognitive Subject	Cognitive Treatment
Subject ( 4 )	Matched Group	Non-Cognitive Subject	Non-Cognitive Treatment
Subject ( 5 )	Matched Group	Non-Cognitive Subject	Non-Cognitive Treatment
Subject ( 6 )	Matched Group	Non-Cognitive Subject	Non-Cognitive Treatment
Subject ( 7 )	Matched Group	Non-Cognitive Subject	Non-Cognitive Treatment
Subject ( 8 ) *	Unmatched Group	Non-Cognitive Subject	Cognitive Treatment
Subject ( 9 ) *	Unmatched Group	Non-Cognitive Subject	Cognitive Treatment
Subject ( 10 )	Unmatched Group	Non-Cognitive Subject	Cognitive Treatment
Subject ( 11 )	Unmatched Group	Cognitive Subject	Non-Cognitive Treatment
Subject ( 12 )	Unmatched Group	Cognitive Subject	Non-Cognitive Treatment
Subject ( 13 )	Unmatched Group	Cognitive Subject	Non-Cognitive Treatment
Subject ( 14 ) *	Unmatched Group	Cognitive Subject	Non-Cognitive Treatment

\*Subjects who dropped out

(--) in the data refers to missing values.

Table B2

RAW SCORES : ANXIETY

Subj.	Pre	Post 1	Post 2	Post 3
<u>Total Sample</u>				
( 1 )	36	13	14	12
( 2 )	40	18	19	19
( 3 )	35	30	27	20
( 4 )	45	59	52	51
( 5 )	64	42	25	37
( 6 )	66	38	48	32
( 7 )	38	21	12	10
( 8 )	73	67	--	60
( 9 )	34	--	--	54
(10)	52	42	36	33
(11)	79	71	74	67
(12)	44	30	5	18
(13)	51	33	22	19
(14)	67	58	--	11
Total	724	522	334	443
Mean	51.71	40.15	30.36	31.64
S.D.	15.33	18.72	20.50	19.37
n	14	13	11	14

Table B2 Cont'd

## RAW SCORES : ANXIETY (Symptom Questionnaire)

	Pre	Post 1	Post 2	Post 3	Pre	Post 1	Post 2	Post 3
	<u>Matched Group</u>				<u>Unmatched Group</u>			
Total	324	221	197	181	400	301	137	262
Mean	46.29	31.57	28.14	25.85	57.14	50.17	34.25	37.42
S.D.	13.20	16.05	15.91	14.82	16.32	17.59	29.38	22.70
n	7	7	7	7	7	7	7	7
	<u>Cognitive Subjects</u>				<u>Non-Cognitive Subjects</u>			
Total	352	253	161	166	372	269	173	277
Mean	50.29	36.14	26.83	23.71	53.14	44.83	34.60	39.57
S.D.	16.77	20.99	24.29	19.42	14.95	16.27	16.49	17.01
n	7	7	6	7	7	6	5	7
	<u>Cognitive Treatment</u>				<u>Non-Cognitive Treatment</u>			
Total	270	170	96	198	454	352	238	245
Mean	45.00	34.00	24.00	33.00	56.75	44.00	34.00	30.63
S.D.	15.23	21.60	9.63	19.87	14.26	17.05	24.73	20.30
n	6	5	4	6	8	8	7	8

Table B3

RAW SCORES : COGNITIVE ANXIETY RESPONSE

<u>Subj.</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>	<u>Post 3</u>
<u>Total Sample</u>				
( 1 )	43	16	22	13
( 2 )	43	28	26	29
( 3 )	50	36	36	23
( 4 )	34	41	41	35
( 5 )	69	44	26	43
( 6 )	76	51	69	35
( 7 )	48	39	18	12
( 8 )	78	78	--	67
( 9 )	40	--	--	67
(10)	43	49	45	29
(11)	95	93	92	93
(12)	64	36	8	28
(13)	58	30	34	18
(14)	81	72	--	9
<u>Total</u>	822	613	417	501
<u>Mean</u>	58.71	47.15	37.90	35.78
<u>S.D.</u>	18.62	21.76	24.08	24.35
<u>n</u>	14	13	11	14

Table B3 Cont'd

RAW SCORES : COGNITIVE ANXIETY RESPONSE (Symptom Questionnaire)

	Pre	Post 1	Post 2	Post 3	Pre	Post 1	Post 2	Post 3
	<u>Matched Group</u>				<u>Unmatched Group</u>			
Total	363	255	238	190	459	358	179	311
Mean	51.86	36.43	34.00	27.14	55.57	59.67	44.75	44.42
S.D.	15.12	11.44	17.35	11.72	20.34	25.11	35.11	31.19
n	7	7	7	7	7	6	4	7
	<u>Cognitive Subjects</u>				<u>Non-Cognitive Subjects</u>			
Total	434	311	218	213	388	302	199	288
Mean	62.00	44.43	36.33	30.42	55.43	50.33	39.80	41.14
S.D.	19.73	27.53	29.05	28.56	18.37	14.31	19.66	20.05
n	7	7	6	7	7	6	5	7
	<u>Cognitive Treatment</u>				<u>Non-Cognitive Treatment</u>			
Total	297	207	129	228	525	406	288	273
Mean	49.50	41.40	32.25	38.00	65.63	50.75	41.14	34.12
S.D.	14.35	23.72	10.34	23.21	19.23	21.26	29.66	26.63
n	6	5	4	6	8	8	7	8

Table B4

RAW SCORES : BEHAVIOURAL ANXIETY RESPONSE

<u>Subj.</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>	<u>Post 3</u>
<u>Total Sample</u>				
( 1 )	32	11	11	8
( 2 )	18	1	19	9
( 3 )	42	43	35	27
( 4 )	64	75	75	80
( 5 )	82	46	29	56
( 6 )	81	54	58	51
( 7 )	51	10	2	8
( 8 )	92	74	--	62
( 9 )	11	--	--	33
(10)	61	47	50	50
(11)	83	69	67	61
(12)	11	0	0	0
(13)	39	35	12	19
(14)	26	28	--	1
<u>Total</u>	693	493	358	465
<u>Mean</u>	49.50	37.92	32.54	33.21
<u>S.D.</u>	28.14	26.59	26.50	26.52
<u>n</u>	14	13	11	14



Table B4 Cont'd

RAW SCORES : BEHAVIORAL ANXIETY RESPONSE (Symptom Questionnaire)

	Pre	Post 1	Post 2	Post 3	Pre	Post 1	Post 2	Post 3
	<u>Matched Group</u>				<u>Unmatched Group</u>			
Total	370	240	229	239	323	253	129	226
Mean	52.86	34.29	32.71	34.14	46.14	42.17	32.25	32.28
S.D.	24.28	27.38	25.98	28.62	33.19	27.52	31.48	26.51
n	7	7	7	7	7	6	4	7
	<u>Cognitive Subjects</u>				<u>Non-Cognitive Subjects</u>			
Total	251	187	144	125	442	306	214	340
Mean	35.86	26.71	24.00	17.85	63.14	51.00	42.80	48.57
S.D.	23.52	24.98	24.02	21.31	27.01	23.82	28.17	22.80
n	7	7	6	7	7	6	5	7
	<u>Cognitive Treatment</u>				<u>Non-Cognitive Treatment</u>			
Total	256	176	115	189	437	317	243	276
Mean	42.67	35.20	28.75	31.50	54.62	39.63	34.71	34.50
S.D.	29.98	29.41	17.33	21.69	27.56	26.63	31.70	31.08
n	6	5	4	6	8	8	7	8

Table B5

RAW SCORES : SONATIC ANXIETY RESPONSE

<u>Subj.</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>	<u>Post 3</u>
<u>Total Sample</u>				
( 1 )	33	12	10	14
( 2 )	39	16	13	17
( 3 )	33	17	16	14
( 4 )	41	62	47	46
( 5 )	49	37	21	22
( 6 )	50	20	27	20
( 7 )	23	16	13	9
( 8 )	59	55	--	55
( 9 )	43	--	--	57
(10)	52	34	23	17
(11)	65	56	66	52
(12)	50	41	4	21
(13)	54	35	18	21
(14)	80	66	--	18
<u>Total</u>	671	467	258	393
<u>Mean</u>	47.93	35.92	23.45	28.07
<u>S.D.</u>	14.47	19.06	18.01	16.73
<u>n</u>	14	13	11	14

Table B5 Cont'd

## RAW SCORES : SOMATIC ANXIETY RESPONSE (Symptom Questionnaire)

	Pre	Post 1	Post 2	Post 3	Pre	Post 1	Post 2	Post 3
	<u>Matched Group</u>				<u>Unmatched Group</u>			
Total	268	180	147	142	403	287	111	251
Mean	38.28	25.71	21.00	20.28	57.57	47.83	27.75	35.85
S.D.	9.57	17.93	12.82	12.12	12.07	13.04	26.78	17.85
n	7	7	7	7	7	6	4	7

Cognitive SubjectsNon-Cognitive Subjects

Total	354	243	127	157	317	224	131	236
Mean	50.57	34.71	21.17	22.42	45.28	37.33	26.20	33.71
S.D.	17.50	21.02	22.51	13.35	11.47	18.37	12.70	18.83
n	7	7	6	7	7	6	5	7

Cognitive TreatmentNon-Cognitive Treatment

Total	259	134	62	184	412	333	196	209
Mean	43.17	26.80	15.50	30.66	51.50	41.63	28.00	26.12
S.D.	10.52	17.88	5.57	20.20	16.62	18.54	21.43	14.78
n	6	6	4	6	8	8	7	8

Table B6

RAW SCORES : FEAR

<u>Subj.</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>	<u>Post 3</u>
<u>Total Sample</u>				
( 1 )	22	14	15	25
( 2 )	20	11	10	9
( 3 )	36	33	35	29
( 4 )	59	59	65	61
( 5 )	76	48	38	46
( 6 )	81	73	75	83
( 7 )	32	29	45	44
( 8 )	83	67	--	64
( 9 )	37	--	--	47
(10)	32	29	24	26
(11)	79	68	75	74
(12)	10	0	0	2
(13)	28	21	19	15
(14)	76	78	--	18
<u>Total</u>	671	530	401	543
<u>Mean</u>	47.93	40.77	36.57	38.78
<u>S.D.</u>	26.37	26.19	26.10	25.05
<u>n</u>	14	13	11	14

Table B6 Cont'd

RAW SCORES : FEAR (Marks &amp; Mathews Fear Questionnaire)

	Pre	Post 1	Post 2	Post 3	Pre	Post 1	Post 2	Post 3
	<u>Matched Group</u>				<u>Unmatched Group</u>			
Total	326	267	283	297	345	263	118	246
Mean	46.37	38.14	40.42	42.42	49.29	43.83	29.50	35.14
S.D.	25.30	23.01	23.90	24.52	29.38	31.47	32.05	26.97
n	7	7	7	7	7	6	4	7
	<u>Cognitive Subjects</u>				<u>Non-Cognitive Subjects</u>			
Total	271	225	154	172	400	305	247	371
Mean	38.71	32.14	25.67	24.57	57.14	50.83	49.40	53.00
S.D.	27.66	29.78	23.62	23.33	23.33	18.87	20.57	18.16
n	7	7	6	7	7	6	5	7
	<u>Cognitive Treatment</u>				<u>Non-Cognitive Treatment</u>			
Total	230	154	84	200	441	376	317	343
Mean	38.33	30.80	21.00	33.33	55.13	47.00	45.28	42.87
S.D.	23.00	22.32	10.96	19.29	27.86	27.86	28.72	29.24
n	6	5	4	6	8	8	7	8

Table B7

RAW SCORES : AGORAPHOBIA

<u>Subj</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>	<u>Post 3</u>
<u>Total Sample</u>				
( 1 )	18	5	3	12
( . 2 )	10	6	3	3
( 3 )	16	12	12	11
( 4 )	28	28	28	23
( 5 )	21	10	9	15
( 6 )	18	16	18	27
( 7 )	18	18	30	28
( 8 )	33	28	--	38
( 9 )	14	--	--	16
(10)	8	7	2	2
(11)	25	18	21	18
(12)	2	0	0	2
(13)	4	1	1	1
(14)	27	19	--	0
<u>Total</u>	<u>229</u>	<u>168</u>	<u>127</u>	<u>196</u>
<u>Mean</u>	<u>16.35</u>	<u>12.92</u>	<u>11.54</u>	<u>14.00</u>
<u>S.D.</u>	<u>10.13</u>	<u>9.20</u>	<u>11.09</u>	<u>11.86</u>
<u>n</u>	<u>14</u>	<u>13</u>	<u>11</u>	<u>14</u>

Table B7 Cont'd

## RAW SCORES : AGORAPHOBIA (Marks &amp; Mathews Fear Questionnaire)

	Pre	Post 1	Post 2	Post 3	Pre	Post 1	Post 2	Post 3
	<u>Matched Group</u>				<u>Unmatched Group</u>			
Total	129	95	105	119	113	73	24	77
Mean	18.42	13.57	14.71	17.00	16.14	12.16	6.00	11.00
S.D.	5.41	7.95	11.07	9.29	12.23	11.23	10.03	14.05
n	7	7	7	7	7	6	4	7

Cognitive SubjectsNon-Cognitive Subjects

Total	102	61	40	47	145	107	60	149
Mean	14.57	8.71	6.66	6.71	20.71	17.83	12.00	21.28
S.D.	9.72	7.73	8.21	6.92	9.77	8.81	10.98	11.54
n	7	7	6	7	7	6	5	7

Cognitive TreatmentNon-Cognitive Treatment

Total	99	58	20	82	143	110	107	114
Mean	16.50	11.60	5.00	13.66	17.87	13.75	15.28	14.25
S.D.	8.89	9.55	4.69	13.09	9.93	9.54	12.21	11.78
n	6	5	4	6	8	8	7	8

Table B8

RAW SCORES : BLOOD &amp; INJURY

Subj.	Pre	Post 1	Post 2	Post 3
<u>Total Sample</u>				
( 1)	16	7	8	9
( 2) 1	2	3	1	1
( 3)	8	5	7	10
( 4)	10	11	10	12
( 5)	30	23	19	11
( 6)	38	32	36	31
( 7)	12	7	13	6
( 8)	24	18	--	12
( 9)	16	--	--	19
(10)	3	4	4	6
(11)	31	29	31	28
(12)	8	0	0	0
(13)	6	8	7	3
(14)	26	40	--	12
Total	240	185	138	160
Mean	17.14	14.23	12.54	11.42
S.D.	12.39	12.94	11.58	9.17
n	14	13	11	14



Table B8 Cont'd

RAW SCORES : BLOOD &amp; INJURY (Marks &amp; Mathews Fear Questionnaire)

	Pre	Post 1	Post 2	Post 3	Pre	Post 1	Post 2	Post 3
	Matched Group				Matched Group			
Total	116	86	96	80	124	99	42	80
Mean	16.57	12.28	13.71	11.42	17.71	16.50	10.50	11.42
S.D.	12.84	11.11	11.04	9.39	12.91	15.56	13.96	9.69
n	7	7	7	7	7	6	4	7
	Cognitive Subjects				Non-Cognitive Subjects			
Total	107	90	56	63	133	95	82	97
Mean	15.28	12.85	9.33	9.00	19.00	15.83	16.40	13.85
S.D.	13.19	15.39	11.03	9.59	12.26	10.57	12.21	8.74
n	7	7	6	7	7	6	5	7
	Cognitive Treatment				Non-Cognitive Treatment			
Total	69	35	22	57	171	150	116	103
Mean	11.50	7.00	5.50	9.50	21.37	18.75	16.57	12.87
S.D.	8.61	6.51	2.38	6.02	13.57	14.22	12.99	11.16
n	6	5	4	6	8	8	7	8

Table B9

RAW SCORES : SOCIAL

<u>Subj.</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>	<u>Post 3</u>
<u>Total Sample</u>				
( 1 )	6	2	4	4
( 2 )	8	4	4	5
( 3 )	12	16	16	8
( 4 )	21	20	27	26
( 5 )	25	15	10	20
( 6 )	25	25	21	25
( 7 )	2	4	2	10
( 8 )	26	21	--	14
( 9 )	7	--	--	12
(10)	21	18	18	18
(11)	23	21	23	28
(12)	0	0	0	0
(13)	18	12	11	11
(14)	13	19	--	6
Total	207	177	136	187
Mean	14.78	13.61	12.36	13.35
S.D.	9.05	8.38	9.24	8.82
n	14	13	11	14

Table B9 Cont'd

RAW SCORES : SOCIAL (Marks &amp; Mathews Fear Questionnaire)

	Pre	Post 1	Post 2	Post 3	Pre	Post 1	Post 2	Post 3
	<u>Matched Group</u>				<u>Unmatched Group</u>			
Total	99	86	84	98	108	91	52	89
Mean	14.14	12.28	12.00	14.00	15.42	15.16	13.00	12.71
S.D.	9.47	8.99	9.60	9.43	9.32	8.13	9.96	8.88
n	7	7	7	7	7	6	4	7
	<u>Cognitive Subjects</u>				<u>Non-Cognitive Subjects</u>			
Total	80	74	58	62	127	103	78	125
Mean	11.42	10.57	9.66	8.85	18.14	17.16	15.60	17.85
S.D.	7.65	8.56	8.68	9.09	9.63	7.25	9.76	6.22
n	7	7	6	7	7	6	5	7
	<u>Cognitive Treatment</u>				<u>Non-Cognitive Treatment</u>			
Total	80	61	42	61	127	116	94	126
Mean	13.33	12.20	10.50	10.61	15.87	14.50	13.42	15.75
S.D.	8.28	8.61	7.54	5.45	10.00	8.70	10.50	10.40
n	6	5	4	6	8	8	7	8

Table B10

RAW SCORES : HOOD

<u>Subj.</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>	<u>Post 3</u>
<u>Total Sample</u>				
( 1 )	18	12	11	7
( 2 )	12	11	6	6
( 3 )	17	10	3	8
( 4 )	14	10	9	5
( 5 )	22	10	5	11
( 6 )	16	20	11	20
( 7 )	7	6	8	9
( 8 )	32	33	--	35
( 9 )	14	--	--	20
(10)	23	29	19	5
(11)	36	32	31	28
(12)	38	16	7	30
(13)	21	7	9	3
(14)	4	30	--	7
Total	314	265	123	194
Mean	22.43	20.38	12.30	13.85
S.D.	11.95	10.61	10.08	10.66
n	14	13	10	14

Table B10 Cont'd

RAW SCORES : MOOD (Marks &amp; Mathews Fear Questionnaire)

	Pre	Post 1	Post 2	Post 3	Pre	Post 1	Post 2	Post 3
	<u>Matched Group</u>				<u>Unmatched Group</u>			
Total	106	80	53	66	168	147	56	128
Mean	15.14	11.29	7.57	9.42	24.00	24.50	14.00	18.28
S.D.	4.77	4.27	3.05	5.06	12.34	10.56	11.37	13.23
n	7	7	7	7	7	6	4	7
	<u>Cognitive Subjects</u>				<u>Non-Cognitive Subjects</u>			
Total	146	118	67	89	128	108	42	105
Mean	20.86	16.86	11.17	12.71	18.28	18.00	8.40	15.00
S.D.	12.31	10.04	10.08	11.25	8.09	11.15	2.19	10.81
n	7	7	6	7	7	6	5	7
	<u>Cognitive Treatment</u>				<u>Non-Cognitive Treatment</u>			
Total	116	95	29	81	158	131	80	113
Mean	19.33	19.00	7.25	13.50	19.75	16.37	11.43	14.12
S.D.	7.26	11.07	3.50	11.87	12.31	10.14	8.83	10.50
n	6	5	4	6	8	8	7	8

Table B11

RAW SCORES : INCAPACITY

<u>Subj.</u>	<u>Pfe</u>	<u>Post 1</u>	<u>Post 2</u>	<u>Post 3</u>
<u>Total Sample</u>				
( 1 )	0	2	1	0
( 2 )	4	3	2	2
( 3 )	4	4	4	2
( 4 )	5	6	4	3
( 5 )	5	4	2	3
( 6 )	4	4	4	3
( 7 )	2	3	3	2
( 8 )	8	8	-	8
( 9 )	6	-	-	6
(10)	8	3	2	2
(11)	7	6	6	5
(12)	8	6	5	6
(13)	8	3	3	2
(14)	2	3	-	2
Total	71	55	36	46
Mean	5.07	4.23	3.27	3.28
S.D.	2.58	1.74	1.49	2.16
n	14	13	11	14

Table B11 Cont'd

RAW SCORES : INCAPACITY (Marks &amp; Mathews Fear Questionnaire)

	Pre	Post 1	Post 2	Post 3	Pre	Post 1	Post 2	Post 3
	<u>Matched Group</u>				<u>Unmatched Group</u>			
Total	24	26	20	15	47	29	16	31
Mean	3.43	3.71	2.86	2.14	6.71	4.83	4.00	4.42
S.D.	1.81	1.25	1.22	1.06	2.21	2.14	1.83	2.43
n	7	7	7	7	7	6	4	7
	<u>Cognitive Subjects</u>				<u>Non-Cognitive Subjects</u>			
Total	33	30	21	19	38	28	15	27
Mean	4.71	4.29	3.50	2.71	4.53	4.67	3.00	3.85
S.D.	3.09	1.70	1.87	2.05	2.15	1.97	1.00	2.26
n	7	7	6	7	7	6	5	7
	<u>Cognitive Treatment</u>				<u>Non-Cognitive Treatment</u>			
Total	30	20	9	20	41	35	27	26
Mean	5.00	4.00	2.25	3.33	5.12	4.36	3.86	3.25
S.D.	3.03	2.35	1.26	3.01	2.42	1.41	1.38	1.48
n	6	5	4	6	8	8	7	8

Table B12

## RAW SCORES : DEPRESSION

Subj	Pre	Wk 2	Wk 3	Wk 4	Post 1	Post 2	Post 3
Total Sample							
(1)	13	15	8	3	7	7	3
(2)	3	2	2	3	2	2	1
(3)	18	11	15	8	8	5	9
(4)	13	10	15	12	8	11	4
(5)	23	16	13	11	9	5	13
(6)	13	14	13	14	14	7	2
(7)	1	0	0	1	1	2	3
(8)	32	21	24	30	29	--	34
(9)	5	2	--	--	--	--	10
(10)	9	10	10	10	3	1	3
(11)	21	18	16	16	17	18	14
(12)	17	1	1	2	3	3	4
(13)	6	4	4	3	3	1	0
(14)	4	16	14	12	15	--	5
Total	178	140	135	125	119	62	105
Mean	12.71	10.00	10.38	9.61	9.15	5.63	7.50
S.D.	8.85	7.03	7.06	7.93	7.91	5.12	8.78
n	14	14	13	13	13	11	14



Table B12 Cont'd

## RAW SCORES : DEPRESSION (Beck Depression Inventory)

	Pre	Wk 2	Wk 3	Wk 4	Post 1	Post 2	Post 3
<u>Matched Group</u>							
Total	84	68	66	52	49	39	35
Mean	12.00	9.71	9.42	7.43	7.00	5.57	5.00
S.D.	3.67	6.34	6.24	5.13	4.40	3.16	4.35
n	7	7	7	7	7	7	7
<u>Unmatched Group</u>							
Total	94	72	69	73	70	23	70
Mean	13.42	10.29	11.50	12.16	11.67	5.75	10.00
S.D.	10.41	8.18	8.38	10.25	10.63	8.22	11.56
n	7	7	6	6	6	4	7
<u>Cognitive Subjects</u>							
Total	82	67	60	47	55	36	36
Mean	11.71	9.57	8.57	6.21	7.86	6.00	5.14
S.D.	7.34	7.14	6.43	5.47	6.01	6.26	4.87
n	7	7	7	7	7	6	7

Table B12 Cont'd

RAW SCORES : DEPRESSION Cont'd

	Pre	Wk 2'	Wk 3	Wk 4	Post 1	Post 2	Post 3
--	-----	-------	------	------	--------	--------	--------

Non-Cognitive Subjects

Total	96	73	75	78	64	26	69
Mean	13.71	10.43	12.50	13.00	10.67	5.28	9.85
S.D.	10.66	7.48	7.77	9.47	10.09	4.02	11.42
n	7	7	6	6	6	5	7

Cognitive Treatment

Total	80	61	59	54	49	15	60
Mean	13.33	10.17	11.80	10.80	9.80	3.75	10.00
S.D.	10.63	7.41	8.26	11.17	11.03	2.75	12.29
n	6	6	5	5	5	4	6

Non-Cognitive Treatment

Total	98	79	76	71	70	47	45
Mean	12.25	9.88	9.50	8.86	8.75	6.71	5.62
S.D.	8.01	7.26	6.65	5.91	6.11	6.02	5.09
n	8	8	8	8	8	7	8

Table B13

## RAW SCORES : CONFIDENCE LEVEL

Subj	Pre	Wk 2	Wk 3	Wk 4	Post 1	Post 2	Post 3
Total Sample							
(1)	57	61	75	73	74	75	65
(2)	62	67	77	83	90	87	95
(3)	28	43	43	54	57	67	55
(4)	53	74	--	34	45	61	54
(5)	38	50	51	64	60	79	63
(6)	49	46	55	64	60	62	81
(7)	45	41	56	45	55	52	53
(8)	12	53	58	46	59	--	10
(9)	57	63	--	--	--	--	72
(10)	24	36	36	46	63	75	89
(11)	47	53	52	61	57	66	65
(12)	48	79	87	85	65	84	84
(13)	51	51	62	73	70	84	87
(14)	48	--	45	51	50	--	84
Total	619	717	697	779	805	792	957
Mean	44.21	55.15	38.08	59.92	61.92	72.00	68.35
S.D.	14.07	12.95	15.02	15.64	11.37	11.23	21.87
n	14	13	12	13	13	11	14

Table B13 Cont'd

## RAW SCORES : CONFIDENCE-LEVEL

	Pre	Wk 2	Wk 3	Wk 4	Post 1	Post 2	Post 3
	<u>Matched Group</u>						
Total	332	382	357	417	441	483	466
Mean	47.43	54.57	59.50	59.57	63.00	69.00	66.57
S.D.	11.62	12.82	13.60	16.66	14.67	12.01	15.85
n	7	7	6	7	7	7	7

Unmatched Group

Total	287	335	340	362	364	309	491
Mean	41.00	55.83	56.66	60.33	60.66	77.25	70.14
S.D.	16.43	14.29	17.52	15.92	6.95	8.62	27.90
n	7	6	6	6	6	4	7

Cognitive Subjects

Total	341	354	441	480	463	403	535
Mean	48.71	59.00	63.00	68.57	66.14	77.17	76.42
S.D.	10.67	12.84	17.16	13.31	13.38	9.20	14.67
n	7	6	7	7	7	6	7

Table B13 Cont'd

## RAW SCORE : CONFIDENCE LEVEL

	Pre	Wk 2	Wk 3	Wk 4	Post 1	Post 2	Post 3
Non-Cognitive Subjects							
Total	278	363	256	299	342	329	422
Mean	39.71	51.86	51.20	49.83	57.00	65.80	60.28
S.D.	16.37	13.05	8.87	11.87	6.42	11.03	25.88
n	7	7	5	6	6	5	7
Cognitive Treatment							
Total	240	323	289	302	343	304	386
Mean	40.00	53.83	57.80	60.40	68.40	76.00	64.33
S.D.	21.19	12.21	18.43	16.77	13.65	8.25	30.48
n	6	6	5	5	5	4	6
Non-Cognitive Treatment							
Total	379	384	408	477	462	488	571
Mean	47.38	56.28	58.28	59.62	57.75	69.71	71.37
S.D.	4.50	14.42	13.68	16.07	7.96	12.63	14.17
n	8	7	7	8	8	7	8

Table B14

RAW SCORES : CAN DO

-----

Subj	Pre	Wk 2	Wk 3	Wk 4	Post 1	Post 2	Post 3
Total Sample							
(1)	10	11	10	10	9	11	15
(2)	15	15	15	15	15	15	15
(3)	7	11	7	8	8	11	15
(4)	14	15	--	12	12	15	15
(5)	9	13	13	13	13	13	15
(6)	11	11	12	13	12	15	15
(7)	10	11	11	10	13	14	15
(8)	1	11	13	9	9	--	0
(9)	15	15	--	--	--	--	15
(10)	6	12	13	13	14	13	15
(11)	11	12	13	13	14	15	14
(12)	7	13	13	13	12	13	13
(13)	9	9	12	12	13	14	15
(14)	8	--	8	8	9	--	14
Total	133	159	140	149	153	149	189
Mean	9.50	12.23	11.66	11.46	11.77	13.54	13.50
S.D.	3.77	1.87	2.31	2.22	2.28	1.51	3.95
n	14	13	12	13	13	11	14

Table B14 Cont'd

RAW SCORES : CAN DO

	Pre	Wk 2	Wk 3	Wk 4	Post 1	Post 2	Post 3
<u>Matched Group</u>							
Total	76	87	68	81	82	94	103
Mean	10.86	12.43	11.33	11.57	11.71	13.43	14.71
S.D.	2.80	1.90	2.73	2.37	2.43	1.81	0.75
n	7	7	6	7	7	7	7
<u>Unmatched Group</u>							
Total	57	72	72	68	71	55	86
Mean	8.14	12.00	12.00	11.33	11.83	13.75	12.28
S.D.	4.34	2.00	2.00	2.25	2.32	0.95	5.46
<u>Cognitive Subjects</u>							
Total	67	71	78	79	80	79	101
Mean	9.57	11.83	11.14	11.29	11.43	13.17	14.42
S.D.	2.82	2.04	2.91	2.69	2.76	1.93	0.78
n	7	6	7	7	7	6	7

Table B14 Cont'd

RAW SCORES : CAV...DO

	Pre	Wk 2	Wk 3	Wk 4	Post 1	Post 2	Post 3
<u>Non-Cognitive Subjects</u>							
Total	66	88	62	70	73	70	88
Mean	9.43	12.57	12.40	11.66	12.16	14.00	12.57
S.D.	4.80	1.81	0.89	1.75	1.72	1.00	5.59
n	7	7	5	6	6	5	7
<u>Cognitive Treatment</u>							
Total	44	75	58	55	55	50	75
Mean	7.33	12.50	11.60	11.00	11.00	12.50	12.50
S.D.	6.53	1.97	3.13	2.91	3.24	1.91	6.12
n	6	6	5	5	5	4	6
<u>Non-Cognitive Treatment</u>							
Total	79	84	62	94	98	99	114
Mean	9.87	12.00	11.71	11.75	12.25	14.10	14.25
S.D.	2.17	1.91	1.79	1.83	1.49	0.89	0.88
n	8	7	7	8	8	7	8



Table B15

RAW SCORES : ANXIETY SCALE

<u>Subj.</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>	<u>Post 3</u>
<u>Total Sample</u>				
(1)	2.83	2.70	2.11	1.24
(2)	1.57	1.93	1.71	1.78
(3)	1.64	1.11	1.50	2.85
(4)	3.00	2.32	--	2.59
(5)	2.42	1.93	1.82	1.75
(6)	2.82	3.26	3.24	3.14
(7)	0.70	0.10	2.80	0.40
(8)	3.19	4.86	5.11	5.91
(9)	2.07	--	--	--
(10)	1.96	1.71	1.36	1.79
(11)	4.61	4.04	2.81	3.70
(12)	1.25	1.00	5.00	2.60
(13)	2.10	1.00	0.60	0.80
(14)	2.82	--	1.27	3.96 <sup>a</sup>
Total	32.98	25.96	29.33	32.51
Mean	2.35	2.16	2.44	2.50
S.D.	0.97	1.37	1.42	1.48
n	14	12	12	13

Table B15 Cont'd

## RAW SCORES : ANXIETY SCALE

	Wk 2	Wk 3	Wk 4	Wk 5	Wk 2	Wk 3	Wk 4	Wk 5
	<u>Matched Group</u>				<u>Unmatched Group</u>			
Total	14.98	13.35	13.18	13.75	18.00	12.61	14.88	18.76
Mean	2.14	1.90	2.19	1.96	2.57	2.52	2.97	3.13
S.D.	0.85	1.04	0.68	0.96	1.09	1.81	2.03	1.80
n	7	7	6	7	7	5	5	6
	<u>Cognitive Subjects</u>				<u>Non-Cognitive Subjects</u>			
Total	16.82	11.78	15.00	16.93	16.16	14.18	14.33	15.58
Mean	2.40	1.96	2.14	2.42	2.30	2.36	2.86	2.59
S.D.	1.15	1.22	1.43	1.20	0.84	1.59	1.46	1.87
n	7	6	7	7	7	6	5	6
	<u>Cognitive Treatment</u>				<u>Non-Cognitive Treatment</u>			
Total	13.26	12.31	11.79	13.57	19.72	13.65	17.54	18.94
Mean	2.21	2.46	2.35	2.71	2.46	1.95	2.50	2.37
S.D.	0.65	1.46	1.56	1.88	1.18	1.38	1.44	1.29
n	6	5	5	5	8	7	7	8

Table B16

RAW SCORES : THOUGHT STOPPING/RELAXATION PRACTICE

<u>Subj.</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>	<u>Post 3</u>
Total Sample				
( 1 )	3.21	3.38	4.55	1.80
( 2 )	4.00	4.14	5.50	6.66
( 3 )	1.60	1.89	1.66	1.66
( 4 )	2.66	3.86	--	2.71
( 5 )	3.37	3.75	2.55	2.83
( 6 )	3.16	3.33	3.00	2.86
( 7 )	3.07	4.00	8.00	7.80
( 8 )	--	4.70	4.10	3.10
( 9 )	4.28	--	--	--
(10)	2.00	1.27	4.00	2.75
(11)	0.70	1.55	2.62	1.25
(12)	--	0.00	2.00	3.00
(13)	4.22	4.00	4.00	4.00
(14)	1.00	5.00	0.00	2.14
Total	33.27	40.87	41.98	42.56
Mean	2.77	3.14	3.49	3.27
S.D.	1.21	1.49	2.05	1.91
n	12	13	12	13

Table B16 Cont'd

## RAW SCORES : THOUGHT-STOPPING/RELAXATION PRACTICE

	WK 2	WK 3	WK 4	WK 5	WK 2	WK 3	WK 4	WK 5
<u>Matched Group</u>								
Total	21.17	24.35	25.26	26.32	12.20	16.52	16.72	16.24
Mean	3.02	3.48	4.21	3.76	2.44	2.75	2.78	2.70
S.D.	0.74	0.76	2.32	2.44	1.72	2.08	1.61	0.93
n	7	7	6	7	5	6	6	6

Matched Group

	WK 2	WK 3	WK 4	WK 5	WK 2	WK 3	WK 4	WK 5
<u>Unmatched Group</u>								
Total	21.17	24.35	25.26	26.32	12.20	16.52	16.72	16.24
Mean	3.02	3.48	4.21	3.76	2.44	2.75	2.78	2.70
S.D.	0.74	0.76	2.32	2.44	1.72	2.08	1.61	0.93
n	7	7	6	7	5	6	6	6

Cognitive Subjects

	WK 2	WK 3	WK 4	WK 5	WK 2	WK 3	WK 4	WK 5
<u>Non-Cognitive Subjects</u>								
Total	14.73	19.96	20.33	20.51	18.54	20.91	21.65	22.05
Mean	2.45	2.85	2.90	2.93	3.09	3.48	4.33	3.67
S.D.	1.55	1.76	1.89	1.89	0.75	1.17	2.15	2.02
n	6	7	7	7	6	6	5	6

Cognitive Treatment

	WK 2	WK 3	WK 4	WK 5	WK 2	WK 3	WK 4	WK 5
<u>Non-Cognitive Treatment</u>								
Total	15.09	15.38	15.81	15.97	18.18	25.49	22.17	26.59
Mean	3.02	3.07	3.95	3.19	2.59	3.18	3.17	3.32
S.D.	1.19	1.46	1.63	2.03	1.28	1.60	2.45	1.97
n	5	5	4	5	7	8	7	8

Non-Cognitive Treatment

	WK 2	WK 3	WK 4	WK 5	WK 2	WK 3	WK 4	WK 5
<u>Non-Cognitive Treatment</u>								
Total	15.09	15.38	15.81	15.97	18.18	25.49	22.17	26.59
Mean	3.02	3.07	3.95	3.19	2.59	3.18	3.17	3.32
S.D.	1.19	1.46	1.63	2.03	1.28	1.60	2.45	1.97
n	5	5	4	5	7	8	7	8

Table B17

# RAW SCORES : UNDERSTANDING OF AGORAPHOBIA QUESTIONNAIRE

Subj	Pre	Wk 4
Total Sample		
(1)	12	18
(2)	11	20
(3)	7	19
(4)	13	17
(5)	9	23
(6)	13	23
(7)	13	17
(8)	13	16
(9)	17	--
(10)	12	24
(11)	18	24
(12)	9	18
(13)	14	22
(14)	13	17
Total	174	258
Mean	12.42	19.84
S.D.	2.92	2.96
n	14	13

	Pre	Wk 4	
	Matched Group		
Total	78	137	121
Mean	11.14	19.57	20.16
S.D.	2.34	2.57	3.60
n	7	7	6
	Cognitive Subjects		Non-Cognitive Subj.
Total	84	128	120
Mean	12.00	19.71	20.00
S.D.	3.56	2.49	3.68
n	7	7	6
	Cognitive Treatment		Non-Cognitive Treat.
Total	72	97	161
Mean	12.00	19.40	20.12
S.D.	3.22	2.96	3.14
n	6	5	8

Table B18

RAW SCORES : PULSE RATE : BASE

<u>Subj</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>
<u>Total Sample</u>			
( 1 )	75	80	85
( 2 )	75	75	85
( 3 )	70	70	75
( 4 )	70	70	75
( 5 )	75	90	75
( 6 )	90	95	85
( 7 )	70	75	85
( 8 )	60	--	--
( 9 )	65	--	--
(10)	80	75	75
(11)	85	95	80
(12)	70	90	80
(13)	55	65	65
(14)	75	80	--
Total	1051	960	865
Mean	72.50	80.00	78.63
S.D.	9.14	10.22	6.36
n	14	12	11

Table B18 Cont'd

RAW SCORES : PULSE RATE : RATE

	Pre	Post 1	Post 2
	<u>Matched Group</u>		
Total	525	555	565
Mean	75.00	79.28	80.71
S.D.	7.07	9.76	5.34
n	7	7	7
	<u>Cognitive Subjects</u>		
	<u>Non-Cognitive Subjects</u>		
Total	505	555	470
Mean	72.14	79.29	78.33
S.D.	9.06	10.58	7.53
n	7	7	6
	<u>Non-Cognitive Subjects</u>		

	Pre	Post 1	Post 2
	<u>Unmatched Group</u>		
Total	490	405	300
Mean	70.00	81.00	75.00
S.D.	10.80	11.94	7.07
n	7	5	4
	<u>Non-Cognitive Subjects</u>		

	<u>Cognitive Treatment</u>		
Total	425	300	320
Mean	70.83	75.00	80.00
S.D.	7.36	4.08	5.77
n	6	4	4
	<u>Non-Cognitive Treatment</u>		
Total	590	660	545
Mean	73.73	82.50	77.86
S.D.	10.60	11.65	6.98
n	8	8	7

Table B19

RAW SCORES : PULSE RATE : IMAGE I

<u>Subj</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>
<u>Total Sample</u>			
( 1 )	75	80	85
( 2 )	70	80	90
( 3 )	80	75	80
( 4 )	80	70	75
( 5 )	90	100	85
( 6 )	120	100	100
( 7 )	80	75	90
( 8 )	60	--	--
( 9 )	70	--	--
(10)	95	80	80
(11)	95	100	85
(12)	80	95	80
(13)	65	75	70
(14)	80	95	--
<u>Total</u>	1140	1025	920
<u>Mean</u>	81.43	85.41	83.63
<u>S.D.</u>	15.19	11.57	8.09
<u>n</u>	14	12	11



Table B 19 Cont'd

RAW SCORES : PULSE RATE : IMAGE--I

	Pre	Post 1	Post 2
	<u>Matched Group</u>		
Total	595	580	605
Mean	85.00	82.86	86.43
S.D.	16.58	12.19	8.02
n	7	7	7

Cognitive Subjects:

Total	545	600	490
Mean	77.86	85.71	81.67
S.D.	9.51	10.58	6.83
n	7	7	6

Cognitive Treatment

Total	450	315	335
Mean	75.00	78.75	83.75
S.D.	11.83	2.50	4.78
n	6	4	4

	Pre	Post 1	Post 2
	<u>Unmatched Group</u>		
Total	545	445	315
Mean	77.86	89.00	78.75
S.D.	13.80	10.83	6.29
n	7	5	4

Non-Cognitive Subjects

Total	595	425	430
Mean	85.00	85.00	86.00
S.D.	19.36	14.14	9.62
n	7	5	5

Non-Cognitive Treatment

Total	690	710	585
Mean	86.25	88.75	83.57
S.D.	16.20	13.02	9.88
n	8	8	7

Table B20

RAW SCORES : PULSE RATE : IMAGE II

<u>Subj.</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>
<u>Total Sample</u>			
( 1 )	75	80	85
( 2 )	80	85	90
( 3 )	80	75	75
( 4 )	75	70	80
( 5 )	80	100	85
( 6 )	100	105	95
( 7 )	80	80	90
( 8 )	60	--	--
( 9 )	80	--	--
(10)	90	80	80
(11)	100	105	90
(12)	85	95	80
(13)	65	70	70
(14)	85	85	--
<u>Total</u>	1135	1030	920
<u>Mean</u>	81.07	85.83	83.63
<u>S.D.</u>	11.12	12.58	7.44
<u>n</u>	14	12	11

Table B20 Cont'd

RAW SCORES : PULSE RATE : IMAGE II

	Pre	Post 1	Post 2		Pre	Post 1	Post 2
	<u>Matched Group</u>				<u>Unmatched Group</u>		
Total	570	595	600		565	435	320
Mean	81.43	85.00	85.71		80.71	87.00	80.00
S.D.	8.52	12.90	6.73		13.97	13.51	8.16
n	7	7	7		7	5	4
	<u>Cognitive Subjects</u>				<u>Non-Cognitive Subjects</u>		
Total	570	585	490		565	435	430
Mean	81.43	83.57	81.67		80.71	87.00	86.00
S.D.	10.69	12.49	8.16		12.39	14.83	6.52
n	7	7	6		7	5	5
	<u>Cognitive Treatment</u>				<u>Non-Cognitive Treatment</u>		
Total	465	320	330		670	710	590
Mean	77.50	80.00	82.50		83.75	88.75	84.28
S.D.	9.87	4.08	6.45		11.87	14.57	8.38
n	6	4	4		8	8	7

Table B21

RAW SCORES : PULSE RATE : IMAGE III

<u>Subj.</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>
<u>Total Sample</u>			
( 1 )	90	80	85
( 2 )	75	85	85
( 3 )	75	80	75
( 4 )	75	70	75
( 5 )	80	100	90
( 6 )	100	95	90
( 7 )	75	75	90
( 8 )	65	--	--
( 9 )	90	--	--
(10)	100	85	80
(11)	110	95	95
(12)	90	100	90
(13)	60	75	70
(14)	90	90	--
<u>Total</u>	<u>1085</u>	<u>1030</u>	<u>925</u>
<u>Mean</u>	<u>7750</u>	<u>85.83</u>	<u>84.09</u>
<u>S.D.</u>	<u>23.59</u>	<u>10.18</u>	<u>8.00</u>
<u>n</u>	<u>14</u>	<u>12</u>	<u>11</u>

Table B21 Cont'd

RAV SCORES : PULSE RATE : IMAGE III

	Pre	Post 1	Post 2	Pre	Post 1	Post 3
	<u>Matched Group</u>			<u>Unmatched Group</u>		
Total	570	585	590	605	445	335
Mean	81.43	83.57	84.28	86.43	89.00	83.75
S.D.	9.88	10.69	6.73	17.96	9.62	11.08
n	7	7	7	7	5	4

	<u>Cognitive Subjects</u>			<u>Non-Cognitive Subjects</u>		
Total	590	605	500	585	425	425
Mean	84.28	86.43	83.33	83.57	85.00	85.00
S.D.	15.92	8.97	9.31	13.45	12.75	7.07
n	7	7	6	7	5	5

	<u>Cognitive Treatment</u>			<u>Non-Cognitive Treatment</u>		
Total	495	330	325	580	700	600
Mean	82.50	82.50	81.25	85.00	87.50	85.71
S.D.	12.94	2.88	4.78	15.81	12.25	9.32
n	6	4	4	8	8	7

Table B22

RAW SCORES : PULSE RATE : REST

<u>Subj</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>
<u>Total Sample</u>			
( 1 )	65	70	80
( 2 )	70	75	80
( 3 )	70	70	70
( 4 )	70	65	70
( 5 )	70	90	75
( 6 )	80	85	85
( 7 )	70	75	85
( 8 )	55	--	--
( 9 )	70	--	--
(10)	75	75	75
(11)	85	90	80
(12)	75	90	80
(13)	60	60	65
(14)	75	80	--
<u>Total</u>	<u>990</u>	<u>925</u>	<u>845</u>
<u>Mean</u>	<u>70.71</u>	<u>77.08</u>	<u>76.81</u>
<u>S.D.</u>	<u>7.56</u>	<u>10.10</u>	<u>6.43</u>
<u>n</u>	<u>14</u>	<u>12</u>	<u>11</u>

Table B22 Cont'd

RAW SCORES : PULSE RATE : ~~REST~~

	Pre	Post 1	Post 2
	<u>Matched Group</u>		
Total	495	530	545

Mean	70.71	75.71	77.86
S.D.	4.49	8.86	6.36
n	7	7	7

Cognitive Subjects

Total	500	535	455
Mean	71.43	76.43	75.83
S.D.	8.02	11.07	6.64
n	7	7	6

Cognitive Treatment

Total	405	290	305
Mean	67.50	72.50	76.25
S.D.	6.89	2.88	4.79
n	6	6	4

Pre	Post 1	Post 2
<u>Unmatched Group</u>		

495	395	300
70.71	79.00	75.00
10.17	12.45	7.07
7	5	4

Non-Cognitive Subjects

490	390	390
70.00	78.00	78.00
7.64	9.75	6.71
7	5	5

Non-Cognitive Treatment

585	635	540
73.12	79.37	77.14
7.53	11.78	7.56
8	8	7

Table B23

RAW SCORES : IMAGERY PULSE RATE

<u>Subj</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>
<u>Total Sample</u>			
( 1 )	80	80	85
( 2 )	75	83	88
( 3 )	78	76	76
( 4 )	76	70	76
( 5 )	83	100	86
( 6 )	106	100	95
( 7 )	78	76	90
( 8 )	61	--	--
( 9 )	80	--	--
(10)	95	81	80
(11)	101	100	90
(12)	85	96	83
(13)	63	73	70
(14)	85	90	--
Total	1146	1025	919
Mean	81.85	85.41	83.54
S.D.	12.56	11.26	7.43
n	14	12	11



Table B23 Cont'd

RAW SCORES : IMAGERY PULSE RATE (Mean pulse rate over three imagery stages)

	Pre	Post 1	Post 2	Pre	Post 1	Post 2
	<u>Matched Group</u>			<u>Unmatched Group</u>		
Total	579	585	596	570	440	323
Mean	82.28	83.57	85.14	81.42	88.00	80.75
S.D.	10.78	11.91	7.03	15.00	11.02	8.30
n	7	7	7	7	5	4
	<u>Cognitive Subjects</u>			<u>Non-Cognitive Subjects</u>		
Total	567	598	491	579	427	427
Mean	81.00	85.42	82.00	82.71	85.40	85.40
S.D.	11.56	10.19	7.61	14.37	13.88	7.60
n	7	7	6	7	5	5
	<u>Cognitive Treatment</u>			<u>Non-Cognitive Treatment</u>		
Total	469	320	329	677	705	590
Mean	78.16	80.00	82.25	84.62	88.12	84.28
S.D.	10.90	2.94	5.31	13.70	13.05	8.73
n	6	4	4	8	8	7

Table B24

RAW SCORES : IMAGERY : SOMATIC

<u>Subj</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>
<u>Total Sample</u>			
( 1 )	60	47	88
( 2 )	20	18	20
( 3 )	10	37	20
( 4 )	52	37	26
( 5 )	40	58	40
( 6 )	60	30	71
( 7 )	16	55	40
( 8 )	83	--	--
( 9 )	57	--	--
(10)	40	8	13
(11)	66	57	40
(12)	12	50	11
(13)	28	37	44
(14)	50	22	--
<u>Total</u>	594	456	413
<u>Mean</u>	42.42	38.00	37.54
<u>S.D.</u>	22.49	16.23	24.04
<u>n</u>	14	12	11

Table B24 Cont'd

RAW SCORES : IMAGERY : SOMATIC

	<u>Matched Group</u>		<u>Unmatched Group</u>	
	Pre	Post 1	Post 2	Post 2
Total	258	282	305	336
Mean	36.85	40.28	43.57	34.80
S.D.	21.41	14.13	26.36	20.06
n	7	7	7	5
<u>Cognitive Subjects</u>				
Total	246	268	223	348
Mean	35.14	38.24	37.16	37.60
S.D.	23.23	14.39	27.97	20.32
n	7	7	6	5
<u>Non-Cognitive Treatment</u>				
Total	270	110	141	324
Mean	45.00	27.50	35.25	40.50
S.D.	27.15	17.71	35.32	20.07
n	6	4	4	8
<u>Non-Cognitive Treatment</u>				
Total	324	346	272	40.50
Mean	40.50	43.25	38.85	20.07
S.D.	20.07	13.60	18.37	8
n	8	8	7	7

Table B25

RAW SCORES : IMAGERY : BEHAVIOURAL

<u>Subj</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>
<u>Total Sample</u>			
( 1 )	13	5	0
( 2 ) 1	50	18	40
( 3 )	60	37	20
( 4 )	28	21	50
( 5 )	6	16	0
( 6 )	30	69	28
( 7 )	16	33	20
( 8 )	16	--	--
( 9 )	0	--	--
(10)	46	33	60
(11)	11	28	50
(12)	37	40	44
(13)	28	31	22
(14)	50	33	--
<u>Total</u>	<u>391</u>	<u>344</u>	<u>334</u>
<u>Mean</u>	<u>27.92</u>	<u>28.66</u>	<u>30.36</u>
<u>S.D.</u>	<u>18.54</u>	<u>17.07</u>	<u>20.15</u>
<u>n</u>	<u>14</u>	<u>12</u>	<u>11</u>

Table B25 Cont'd

RAW SCORES : IMAGERY : BEHAVIORAL

	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>		<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>
	<u>Matched Group</u>				<u>Unmatched Group</u>		
Total	203	199	158		188	165	176
Mean	29.00	28.42	22.57		26.85	33.00	44.00
S.D.	19.82	20.84	18.78		18.69	4.41	16.08
n	7	7	7		7	5	4
	<u>Cognitive Subjects</u>				<u>Non-Cognitive Subjects</u>		
Total	249	192	176		142	172	158
Mean	35.57	27.42	29.33		20.28	34.40	31.60
S.D.	19.08	12.14	18.74		15.63	20.73	23.93
n	7	7	6		7	5	5
	<u>Cognitive Treatment</u>				<u>Non-Cognitive Treatment</u>		
Total	185	93	120		206	271	214
Mean	30.83	23.25	30.00		25.75	33.87	30.57
S.D.	24.23	14.66	25.81		14.37	16.03	18.53
n	6	4	4		8	8	7

Table B26

RAW SCORES : IMAGERY : COGNITIVE

<u>Subj</u>	<u>Pre</u>	<u>Post 1</u>	<u>Post 2</u>
<u>Total Sample</u>			
( 1 )	26	47	11
( 2 )	16	43	13
( 3 )	30	12	0
( 4 )	20	40	23
( 5 )	53	8	20
( 6 )	10	0	0
( 7 )	66	11	40
( 8 )	0	--	--
( 9 )	0	--	--
(10)	13	25	13
(11)	22	0	0
(12)	37	10	33
(13)	42	31	11
(14)	0	44	--
Total	335	271	164
Mean	23.92	22.58	14.90
S.D.	20.12	17.81	13.23
n	14	12	11

Table 826 Cont'd

RAW SCORES : IMAGERY : COGNITIVE

	Pre	Post 1	Post 2
	<u>Matched Group</u>		
Total	221	161	107
Mean	31.57	23.00	15.28
S.D.	20.49	19.51	16.04
n	7	7	7

Cognitive Subjects

Total	173	187	68
Mean	24.71	26.71	11.33
S.D.	13.98	19.16	12.07
n	7	7	6

Cognitive Treatment

Total	85	127	37
Mean	14.16	31.75	9.25
S.D.	12.62	16.27	6.23
n	6	4	4

Pre Post 1 Post 2

Unmatched Group

	114	110	57
	16.28	22.00	14.25
	17.93	17.33	13.74
	7	5	4

Non-Cognitive Subjects

	162	84	96
	23.14	16.80	19.20
	26.09	15.08	14.61
	7	5	5

Non-Cognitive Treatment

	250	144	127
	31.25	18.00	18.14
	22.26	17.68	15.46
	8	8	7

Table B27

RAW SCORES : IMAGERY : GENERAL

Subj.	Pre	Post 1	Post 2
( 1 )	0	0	0
( 2 )	12	18	26
( 3 )	0	12	60
( 4 )	0	0	0
( 5 )	0	16	40
( 6 )	0	0	0
( 7 )	0	0	0
( 8 )	0	-	-
( 9 )	42	-	-
(10)	0	33	13
(11)	0	14	10
(12)	12	0	11
(13)	0	0	22
(14)	0	0	-
Total	66	93	182
Mean	4.71	7.75	16.54
S.D.	11.57	10.82	19.33
n	14	12	11



Table B27 Cont'd

BAV SCORES : IMAGERY : GENERAL

	Pre	Post 1	Post 2
	12	46	126
Total	12	46	126
Mean	1.71	6.57	18.00
S.D.	4.53	8.38	24.52
n	7	7	7

	Pre	Post 1	Post 2
	54	47	56
Total	54	47	56
Mean	7.71	9.40	14.00
S.D.	15.76	14.51	5.47
n	7	5	4

Cognitive Subjects

	Pre	Post 1	Post 2
	42	28	40
Total	42	28	40
Mean	6.00	5.60	10.00
S.D.	15.87	7.79	20.00
n	7	5	4

Non-Cognitive Subjects

	Pre	Post 1	Post 2
	54	47	56
Total	54	47	56
Mean	6.75	7.83	11.20
S.D.	14.84	13.54	7.85
n	8	6	5

Cognitive Treatment

	Pre	Post 1	Post 2
	12	46	126
Total	12	46	126
Mean	2.00	7.66	21.00
S.D.	4.89	8.61	25.41
n	6	6	6

Non-Cognitive Treatment

	Pre	Post 1	Post 2
	54	47	56
Total	54	47	56
Mean	6.75	7.83	11.20
S.D.	14.84	13.54	7.85
n	8	6	5

Appendix C

Summary of Analysis of Variance

- Beck Depression Inventory	C1
- Mood	C2
- Total Fear	C3
- Agoraphobia	C4
- Incapacity	C5
- Confidence level	C6
- Can do	C7

Summary of Analysis of Variance - Imagery and  
Lehrer and Woolfolk classification compared

- Total anxiety	C8
- Cognitive anxiety	C9
- Behavioural anxiety	C10
- Somatic anxiety	C11
- Beck Depression Inventory	C12
- Total fear	C13

- Mood	C14
- Agoraphobia	C15
- Incapacity	C16
- Confidence level	C17
- Can do	C18

Table C1

Summary of Analysis of Variance - S.D.I.

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	1526.00	11			
A (Subject)	35.75	1	35.75	0.20	ns
B (Treatment)	5.03	1	5.03	0.03	ns
AB	107.66	1	107.66	0.62	ns
SwG	1378.00	8	172.25		
Within	580.50	12			
C (Pre/Post 3)	330.03	1	330.03	22.37	0.01
AC	62.66	1	62.66	4.25	0.10
BC	57.04	1	57.04	3.86	0.10
ABC	12.75	1	12.75	0.86	ns
CxSwG	118.00	8	14.75		

Table C2

## Summary of Analysis of Variance - Mood Scale

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	1919.12	11			
A (Subject)	693.37	1	693.37	4.90	0.10
B (Treatment)	92.04	1	92.04	0.65	ns
AB	2.04	1	2.04	0.01	ns
SwG	1131.66	8	141.45		
Within	638.5	12			
C (Pre/Post 3)	301.04	1	301.04	8.69	0.05
AC	0.04	1	0.04	0.00	ns
BC	9.37	1	9.37	0.27	ns
ABC	51.04	1	51.04	1.47	ns
CxSwG	277.00	8	34.62		

Table C3a

Summary of Analysis of Variance - Total Fear

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	14469.33	11			
A (Subject)	2.66	1	2.66	0.02	ns
B (Treatment)	748.16	1	748.16	0.58	ns
AB	3504.16	1	3504.16	2.74	0.25
SwG	10214.33	8	1276.79		
Within	1696.00	12			
C (Pre/Post 3)	770.66	1	770.66	6.84	0.05
AC	2.66	1	2.66	0.02	ns
BC	1.50	1	1.50	0.01	ns
ABC	20.16	1	20.16	0.18	ns
CxSwG	901.00	8	112.62		

Table C4

Summary of Analysis of Variance - Agoraphobia

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	2428.83	11			
A (Subject)	42.66	1	42.66	0.18	ns
B (Treatment)	6.00	1	6.00	0.02	ns
AB	541.50	1	541.50	2.35	0.25
SwG	1838.66	8	229.83		
Within	303.00	12			
C (Pre/Post 3)	54.00	1	54.00	3.34	0.25
AC	1.50	1	1.50	0.09	ns
BC	37.50	1	37.50	2.32	0.25
ABC	80.66	1	80.66	4.98	0.10
CxSwG	129.33	8	16.16		

Table C5

Summary of Analysis of Variance - Incapacity

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	84.83	11			
A (Subject)	60.16	1	60.16	25.33	0.01
B (Treatment)	1.50	1	1.50	0.63	ns
AB	4.16	1	4.16	1.75	0.25
SwG	19.00	8	2.375		
Within	53.00	12			
C (Pre/Post 3)	32.66	1	32.66	14.25	0.01
AC	0.66	1	0.66	0.28	ns
BC	0.66	1	0.66	0.28	ns
ABC	0.66	1	0.66	0.28	ns
CxSwG	18.33	8	2.29		



Table C6

Summary of Analysis of Variance - Confidence Level

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	6729.45	11			
A (Subject)	26.04	1	26.04	0.04	ns
B (Treatment)	459.37	1	459.37	0.73	ns
AB	1218.37	1	1218.37	1.93	0.25
SwG	5025.66	8	628.20		
Within	5968.50	12			
C (Pre/Post 3)	4240.04	1	4240.04	22.08	0.01
AC	117.04	1	117.04	0.60	ns
BC	30.375	1	30.375	0.15	ns
ABC	45.37	1	45.37	0.23	
CxSwG	1535.66	8	191.95		

Table C7

Summary of Analysis of Variance - 'Can Do'

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	306.50	11			
A (Subject)	48.16	1	48.16	1.59	0.25
B (Treatment)	6.00	1	6.00	0.19	ns
AB	10.66	1	10.66	0.35	ns
SwG	241.66	8	30.20		
Within	178.00	12			
C (Pre/Post 3)	121.50	1	121.50	20.42	0.01
AC	0.16	1	0.16	0.02	ns
BC	6.00	1	6.00	1.00	ns
ABC	2.66	1	2.66	0.44	ns
CxSwG	47.66	8	5.95		

Table C8

Summary of Analysis of Variance - Total Anxiety

Imagery and Lehrer & Woolfolk Classifications Compared

Source	SS	DF	MS	F	P
Between	40821.12	11			
A (Imagery)	9480.37	1	9480.37	2.63	0.25
B (L & W)	2542.04	1	2542.04	0.70	ns
AB	2.04	1	2.04	0.00	ns
SwG	28796.66	8	3599.58		
Within	27678.50	12			
C(Pre/Post 3)	13585.04	1	13585.04	17.48	0.01
AC	1190.04	1	1190.04	1.53	ns
BC	3060.04	1	3060.04	3.93	0.10
ABC	3626.04	1	3626.04	4.66	0.10
CxSwG	6217.33	8	777.16		

Table C9

## Summary of Analysis of Variance - Cognitive Anxiety

## Imagery and Lehrer &amp; Woolfolk Classifications Compared

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	4948.45	11			
A (Imagery)	950.04	1	950.04	1.91	0.25
B (L & W)	9.375	1	9.375	0.01	ns
AB	12.04	1	12.04	0.02	ns
SwG	3977.00	8	497.12		
Within	2902.5	12			
C (Pre/Post 3)	1162.04	1	1162.04	9.15	0.05
AC	108.37	1	108.37	0.85	ns
BC	330.04	1	330.04	2.60	0.25
ABC	287.04	1	287.04	2.26	0.25
CxSwG	1015.00	8	126.875		

Table C10

Summary of Analysis of Variance - Behavioural Anxiety

Imagery and Lehrer &amp; Woolfolk Classifications Compared

Source	SS	DF	MS	F	P
Between	7056.12	11			
A (Imagery)	176.04	1	176.04	0.27	ns
B (L & W)	1751.04	1	1751.04	2.73	0.25
AB	12.04	1	12.04	0.01	ns
SwG	5117.00	8			
Within	1695.50	12			
C (Pre/Post 3)	715.04	1	715.04	10.17	0.05
AC	77.04	1	77.04	1.09	ns
BC	40.04	1	40.04	0.56	ns
ABC	301.04	1	301.04	4.28	0.10
CxSwG	562.33	8	70.29		

Table C11

## Summary of Analysis of Variance - Somatic Anxiety

## Imagery and Lehrer &amp; Woolfolk Classifications Compared

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	6837.83	11			
A (Imagery)	2860.12	1	2860.12	6.07	0.05
B (L & W)	130.66	1	130.66	0.27	ns
AB	80.66	1	80.66	0.17	ns
SwG	3766.33	8	470.79		
Within	6442.00	12			
C (Pre/Post 3)	3128.16	1	3128.16	17.08	0.01
AC	253.50	1	253.50	1.38	ns
BC	912.66	1	912.66	4.98	0.10
ABC	682.66	1	682.66	3.72	0.10
CxSwG	1465.00	8	183.12		

Table C12

Summary of Analysis of Variance - B.D.I.

Imagery and Lehrer & Woolfolk Classifications Compared

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	1598.45	11			
A (Imagery)	315.375	1	315.375	2.04	0.25
B (L & W)	40.04	1	40.04	0.26	ns
AB	7.04	1	7.04	0.05	ns
SwG	1236.00	8	154.5		
Within	624.50	12			
C (Pre/Post 3)	330.04	1	330.04	19.13	0.01
AC	1.04	1	1.04	0.06	ns
BC	63.37	1	63.37	3.67	0.10
ABC	92.04	1	92.04	5.33	0.05
CxSwG	138.00	8	17.25		

Table C13

Summary of Analysis of Variance - Total Fear

Imagery and Lehrer &amp; Woolfolk Classifications Compared

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	9137.83	11			
A (Imagery)	2904.00	1	2904.00	4.75	0.10
B (L & W)	1120.66	1	1120.66	1.83	0.25
AB	228.16	1	228.16	0.37	ns
SwG	4885.00	8	610.62		
Within	3346.00	12			
C (Pre/Post 3)	1441.50	1	1441.50	7.56	0.05
AC	24.00	1	24.00	0.12	ns
BC	216.00	1	216.00	1.13	ns
ABC	140.16	1	140.16	0.73	ns
CxSwG	1524.33	8	190.54		



Table C14

Summary of Analysis of Variance - Mood Scale

Imagery and Lehrer & Woolfolk Classifications Compared

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>P</u>	<u>F</u>
Between	1482.45	11			
A (Imagery)	345.04	1	345.04	23.79	0.01
B (L & W)	9.37	1	9.37	0.64	ns
AB	22.04	1	22.04	1.52	ns
SwG	1106.00	8	14.50		
Within	821.50	12			
C (Pre/Post 3)	495.04	1	495.04	25.17	0.01
AC	35.04	1	35.04	1.78	0.25
BC	57.04	1	57.04	2.90	0.25
ABC	77.04	1	77.04	3.91	0.10
CxSwG	157.33	8	19.66		

Table C15

Summary of Analysis of Variance - Agoraphobia

Imagery and Lehrer & Woolfolk Classifications Compared

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	2115.12	11			
A (Imagery)	630.37	1	630.37	4.62	0.10
B (L & W)	392.04	1	392.04	2.87	0.25
AB	1.04	1	1.04	0.00	ns
SwG	1091.66	8	136.45		
Within	639.5	12			
C (Pre/Post 3)	247.04	1	247.04	10.56	0.05
AC	35.04	1	35.04	1.49	ns
BC	135.37	1	135.37	5.79	0.05
ABC	35.04	1	35.04	1.49	ns
CxSwG	187.00	8	23.37		

Table C16

## Summary of Analysis of Variance - Incapacity

## Imagery and Lehrer &amp; Woolfolk Classifications Compared

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	71.45	11			
A (Imagery)	7.04	1	7.04	1.09	ns
B (L & W)	9.37	1	9.37	1.43	ns
AB	3.37	1	3.37	0.52	ns
SwG	51.66	8	6.45		
Within	70.50	12			
C (Pre/Post 3)	45.37	1	45.37	22.24	0.01
AC	3.37	1	3.37	1.65	0.25
BC	2.04	1	2.04	1.00	ns
ABC	3.37	1	3.37	1.65	ns
CxSwG	16.33	8	2.04		

Table C17

Summary of Analysis of Variance - Confidence Level

Imagery and Lehrer &amp; Woolfolk Classifications Compared

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	6344.12	11			
A (Imagery)	273.37	1	273.37	0.44	ns
B (L & W)	1053.37	1	1053.37	1.72	0.25
AB	135.37	1	135.37	0.22	ns
SwG	4882.00	8	610.25		
Within	5507.50	12			
C (Pre/Post 3)	3432.04	1	3432.04	25.09	0.01
AC	759.37	1	759.37	5.55	0.05
BC	35.04	1	35.04	0.25	ns
ABC	187.04	1	187.04	1.36	ns
CxSwG	1094.00	8	136.75		

Table C18

Summary of Analysis of Variance - 'Can Do'

Imagery and Lehrer &amp; Woolfolk Classifications Compared

<u>Source</u>	<u>SS</u>	<u>DF</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between	317.00	11			
A (Imagery)	6.00	1	6.00	0.16	ns
B (L & W)	16.66	1	16.66	0.45	ns
AB	0.66	1	0.66	0.02	ns
SwG	293.66	8	36.70		
Within	149.00	12			
C (Pre/Post 3)	88.16	1	88.16	23.77	0.01
AC	13.50	1	13.50	3.64	0.10
BC	4.16	1	4.16	1.12	ns
ABC	13.50	1	13.50	3.64	0.10
CxSwG	29.66	8	3.71		

